DOCUMENT RESUME

ED 262 229 CE 042 641

AUTHOR Hill, Ann Marie; Bragg, Debra D.
TITLE The Impact of Day-Care Services on the Education of Secondary and Adult Students in Ohio.
INSTITUTION Ohio State Univ., Columbus. National Center for Research in Vocational Education.
SPONS AGENCY Ohio State Dept. of Education, Columbus.
PUB DATE 85
NOTE 139p.; This publication was prepared pursuant to a contract with the Gallia-Jackson-Vinton County Joint Vocational School on a grant from the Home Economics Section of the Ohio Department of Education.
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC06 Plus Postage.
DESCRIPTORS *Academic Persistence; Adult Education; Adult Students; Attendance; *Day Care; *Dropout Prevention; *Early Parenthood; *Females; Grade Point Average; High School Equivalency Programs; High School Students; *Program Effectiveness; Secondary Education; State Programs; Statewide Planning; Youth Problems
IDENTIFIERS *Ohio

ABSTRACT

The incidence of pregnancy among young teenagers has increased dramatically in the past several decades. Young single mothers are much more likely than others to leave school before graduation and to be unemployed and poor. This study was conducted to identify differences in completion, school attendance rates, and grades for secondary and adult students who received day-care services for their children compared to those who did not. Data were gathered from four day-care sites in Akron, Cleveland, Cincinnati, and Dayton. (Data from two other sites were not usable.) A total of 145 secondary and adult students were provided with day care for their children and 145 were not. The study found that attendance rates and grade point averages (GPAs) for students using day care were similar to the attendance rates and GPAs of those who did not. In general, attendance was higher for high school students than for adults. Nearly three-fourths of secondary students who had children in day care completed courses or graduated, compared to only two-fifths of secondary students whose children were not in day care. While one-third of adults with children in day care completed courses or high school equivalency degrees, only approximately one-tenth of the adult comparison group did so. Recommendations were made to the Home Economics Section staff of the Ohio Division of Vocational Education and to local coordinators of day-care programs for program improvement. (KC)

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THE IMPACT OF DAY-CARE SERVICES ON THE EDUCATION OF SECONDARY AND ADULT STUDENTS IN OHIO

Ann Marie Hill
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FUNDING INFORMATION

Project Title:	Impact Evaluation of Day Care Services
Research Foundation Project Number:	RF 716875
Source of Funding:	Gallia-Jackson-Vinton County Joint Vocational School
Contractor:	The National Center for Research in Vocational Education The Ohio State University Columbus, OH 43210-1090
Executive Director:	Robert E. Taylor
Disclaimer:	This publication was prepared pursuant to a contract with the Gallia-Jackson-Vinton County Joint Vocational School on a grant from the Home Economics Section of the Ohio Department of Education, Division of Vocational Education. Contractors undertaking such projects under government sponsorship are encouraged to express freely their judgment in professional and technical matters. Points of view or opinions do not, therefore, necessarily represent official Ohio Division of Vocational Education position or policy.
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FOREWORD

The incidence of pregnancy among unmarried teenage females is rising at an alarming rate. The increase is very dramatic for younger teenagers. Although the rate of high school dropout among all teenage mothers is high, the rate is highest among younger teenage mothers. Unfortunately, few special services are offered to assist young parents in completing high school. Furthermore, little research has been conducted to assist program planners in designing special services or programs.

An innovative program is offered by the Home Economics Section of the Ohio Department of Education Division of Vocational Education, to help Ohio's young parents to finish high school. This research assesses the impact of day-care services offered during the 1984-1985 school year on school attendance, graduation, course or GED completion, and grades of young parents. This report summarizes the research findings and offers recommendations to make day-care services more effective in the future in order to help Ohio's young parents complete high school.

The National Center for Research in Vocational Education extends its appreciation to Kathy Voorhies, State Supervisor, the Home Economics Section of the Ohio Department of Education, Division of Vocational Education and the Gallia-Jackson-Vinton County Joint Vocational School for sponsoring this research project. This project was conducted in the Evaluation and Policy Division of the National Center under the direction of N. L. McCaslin, Associate Director. The project directors, Debra Bragg, Research Specialist, and Ida Halasz, Associate Director, are thanked for the leadership they provided while the study was being conducted. Ann Marie Hill, Graduate Research Associate, assisted in the collection of data and in preparation of the text, tables and figures. Reviews of the final document were ably conducted by Joanna Kister, Assistant Director of Home Economics, Ohio Department of Education and Joanne Tappenden, Professor, Home Economics Education, University of Akron. Their thoughtful contributions are acknowledged with thanks. Marta Fisch, Program Associate, is acknowledged for writing numerous computer programs to analyze the data. Special thanks are extended to Marilyn Orlando for providing administrative assistance on the project and coordinating preparation of the manuscript. Vicki Owens, Louise Pierson, and Terri Martin are acknowledged for their accurate and efficient preparation of the manuscript.

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Executive Director
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in Vocational Education

EXECUTIVE SUMMARY

The incidence of pregnancy among young teenagers has increased dramatically in the past several decades. Also, during the same period, women of all ages have been more likely to bear children out of wedlock and raise their children as single parents. The consequences, however, are more serious for younger females since teenage mothers are less likely to complete high school than other female high school students. Furthermore, young single parent mothers are much more likely to be unemployed and poor than older and/or married mothers.

With pregnancy linked closely to high school female dropouts, it is critical that support services be offered to aid young mothers in completing high school. However, support services such as day care are rarely available for teenage parents in school. This research was undertaken to identify differences in completion, school attendance rates and grades for secondary and adult students who received day-care services for their children compared to those who did not.

This study will assist the Home Economics Section of the Ohio Department of Education Division of Vocational Education determining the impact of day-care services for young parents (both females and males) and to assist in improving day care. The study's objective was to determine the impact of participation in six state funded day-care projects upon secondary and adult vocational students in the following areas:

- Graduation rates
- Course completion rates
- GED completion rates
- Attendance in school
- Grades for courses taken during the school year

This study provided other valuable findings in the following four ways:

- By identifying the type of day care successful in assisting students in graduation and completion rates, attendance in school, and grades

- By determining the relationship of student's age, grade, number of children, availability of other day-care services, and vocational program to graduation and completion rates, attendance in school, and grades

- By developing a preliminary list of the benefits of the day care programs for young mothers based upon surveys completed by coordinators

- By suggesting to the Home Economics Section of Ohio's Vocational Education Division recommendations for improving day care

Methods

In order to address the research objective, a quasi-experimental design was used. The six coordinators of the state-funded day-care projects reported information about students by completing instruments designed to collect data for this project. Data were collected and reported for a total of 290 secondary students (60 percent) and adult students (40 percent). The two groups were equally divided into 145 secondary and adult students who received day care services and 145 secondary and adult students who did not. However, both groups of secondary students and adults were composed of parents with one or more children who had not graduated from high school or received equivalent degrees. Data were then analyzed for these students using frequency distributions, crosstabulations, the chi-square, and correlations (Cramer's V and Pearson Product-Moment Coefficients).

Findings and Conclusions

The major findings and conclusions are summarized below:

- Four of the six sites provided data on a sufficiently large sample to be included in the study. A total of 62 secondary and adult students were participating in the program in existing facilities in Akron, 37 secondary and adult students were in existing facilities in Cleveland, 19 students and adults were in a reestablished day-care center in Cincinnati, and 24 secondary students received contracted day-care services in Dayton. Only three students participated in the new day-care program in Rio Grande, and in Toledo the infant care center did not open.

- Generally, secondary students with children in day care were black, single females between 16 and 18 years old who were enrolled in grades 11 or 12, were participating in a home economics course, and were informed about day care by a teacher. These teenagers usually had 1 child between 1 and 12 months of age.

- Generally, adult students with children in day care were black females who had never married, or were separated or divorced. Their child was usually under 3 years of age. These adults were usually living alone or with one parent within five miles of the school. Many of these adults were enrolled in the Graduation Occupation and Living Skills Programs (GOALS).

- In Dayton, 79 percent of the secondary students graduated or completed courses. In Akron, 75 percent of secondary students graduated or completed courses, and 27 percent of adults completed courses or the General Educational Development (GED). In Cleveland, 40 percent of a combined group of secondary and adult students completed courses, with 9 percent graduating. Finally, in Cincinnati, 42 percent of a combined group of secondary and adult students completed courses or graduated. The proportion of individuals who graduated or completed courses by site was influenced somewhat by the proportion of secondary students who were in grade 12.

- Across all sites, attendance rates and grade point averages (GPAs) for students using day care were similar to the attendance rates and GPAs of those who did not. However, there were some differences in attendance rates depending upon whether secondary or adult students were served by day care. Generally, when the sites were serving primarily secondary students, regardless of the type of day care, attendance rates were higher than when sites were serving primarily adults.

- Across all sites, differences in course completion and graduation were observed for secondary and adult students who had children in day care compared to those who did not. Nearly three-fourths of secondary students who had children in day care completed courses or graduated compared to only two-fifths of secondary students who did not. Furthermore, while one-third of adults with children in day care completed courses or GEDs. only approximately one-tenth of the adult comparison group had done so.

Recommendations

The study recommendations are directed primarily to the Home Economics Section staff of the Ohio Division of Vocational Education. These state-level program coordinators, who are interested in optimizing educational opportunities for secondary and adult students who risk not finishing high school, should give careful attention to these recommendations. Recommendations are also made for local coordinators of day-care programs in an attempt to help them improve their programs.

Ohio Division of Vocational Education Home Economics Section Staff

To the Ohio Division of Vocational Education Home Economics Section staff, the following is recommended:

- Continue the day-care program so that all secondary and adult students who need day-care services for their children have improved opportunities to complete their courses and finish high school.

- Provide appropriate day care for secondary and adult students. The emphasis at the secondary level should be on providing infant care for secondary students since their children are usually very young. A secondary emphasis should be placed on care of older preschool children since fewer children of secondary students are toddlers or older. Infant care and child care should be provided for the children of adults since these children usually represent a wide range of ages.

- Provide administrative assistance to local site coordinators to help them set up day-care programs. Make sure legal aspects of setting up day-care programs are understood by local site coordinators. Provide copies of legislation needed by local site coordinators and assist them in establishing communication networks among themselves.

- Modify the day-care program for secondary students in grades 9 or 10, and 11 or 12, and for adult students. Three different types of day-care programs should be provided for students at these three levels. More emphasis should be placed upon improving attendance among secondary students in grades 9 and 10 and among adult students who are most likely to drop out of school. These findings indicate attending school regularly is associated with completing courses and graduating. Although factors such as transportation and distance to school are not highly related to completion, there may be other factors associated with school attendance that need to be investigated. For example, research suggests that health problems among young pregnant females are a possible factor contributing to dropping out. Poor health of young teenagers and their children also frequently leads to poor attendance. Another factor that may influence attendance among both secondary and adult students is involvement in criminal activity. A third variable that may influence attendance, particularly among adults, is employment. When adults are employed and conflicts arise between whether to go to work or to school, many adults may choose the job and the paycheck over school. These variables, and others, need to be studied in order to reduce absenteeism and increase the likelihood of course completion and graduation.

- Determine through additional research whether one type of service is more effective than another such as school district managed day care or day-care services contracted with private providers. This research should address such

programming features as staffing, convenience for the participant, support services, crisis prevention services and job placement. Besides examining day-care programs in Ohio, the research should identify model programs in other parts of this country and in other cultures. For example, a study of day care in the Netherlands, where a socialized system of day care is more prominent than the United States may provide many ideas for improving Ohio's programs. This research may also benefit other home economics programs that educate students for employment in day-care programs.

- Determine through additional research the extent to which students who graduate from high school and adults who pass the GED find employment or continue their education. This is an inevitable question for any vocational program. Follow-up studies of graduates could yield powerful evidence regarding the effectiveness of the day-care program.

- Continue to collect impact data on secondary students and adults who participate in Ohio's day-care programs. The following modifications are recommended in order to improve the quality of information collected:

  -- Revise the instrument to make items more specific and relevant for secondary students and adults.

  -- Improve the directions and training provided for data collectors.

  -- Increase the involvement of researchers in data collection through on-site administration of questionnaires. Conduct personal interviews with secondary and adult students to obtain a better understanding of why individuals do not finish their courses or school.

  -- Continue to collect data about the gross number of school days a student is absent throughout the year as well as the duration of absence periods (i.e., 1 day per month versus 1 week per month), and the prevalence of absence among classmates.

  -- Define dropping out as leaving school and not participating in any more schooling during the entire school year. Then, determine the number of secondary and adult students who fall into that category.

  -- Discontinue collecting grade point average data as they were difficult to collect and not associated with attendance or type of completion.

-- Add an impact measure indicating the progress secondary and adult students make toward obtaining GEDs or diplomas. For example, what are the number of Carnegie units that secondary students complete when participating in the day-care program? These data are necessary to determine the progress adults and students in grades 9, 10, and 11 make toward graduation or GED completion.

-- Continue to collect assessments of site coordinators toward their day-care programs along with impact data. Recognize, however, that the assessments of site coordinators should focus upon information that coordinators can provide accurately.

-- Recognize that for the day-care program to have an impact on the graduation rates of students in grades 9 or 10, these students must stay in school for a 3 or 4 year period. If a high proportion of these students dropout, then the day-care program will not be accomplishing the purpose of retaining the students until graduation. The program will fail to serve secondary students who have the most severe need for assistance in order to graduate. Thus, the data collection should follow these students over that same 3 to 4 year period in order to assess the impact of the day-care program.

- Conduct a research study to explore factors that are associated with increased incidences of teenage pregnancy. Such research could help improve understanding of this phenomenon and provide information about various ways for home economics programs to serve young single parents. Determine to what extent changes in the following areas are associated with teenage pregnancy and the decision by more and more young females to raise their children alone:

  -- Self-image and self-esteem

  -- Relationships between teenage females and their parent(s)

  -- Sex education

  -- Sexual activity

  -- Income level

  -- Attitudes toward school subjects and school rules

  -- Peer influence and prevalence of pregnancy among peers

-- Attitudes of teenage females toward pregnancy out of wedlock and adoption

-- Presence of a single mother

-- Knowledge of child development

- Conduct research to determine the reasons why some students in high risk groups do not become single parents and are successful in school while other high risk groups students dropout to be single parents.

Local Day-care Coordinators

To the local day-care coordinators, the following is recommended:

- Provide infant care and older preschool child care when adult students are served. Infant care is essential for secondary students and child care should receive secondary emphasis.

- Remain flexible when administering the day-care program in the early years. As characteristics of students are better understood, investment in transportation and other services may be appropriate. However, at this early date, the data generally do not indicate that these investments would improve the program or increase the impact of the program on students' completion and attendance rates.

CHAPTER 1

INTRODUCTION

The Home Economics Section of the Ohio Department of Education, Division of Vocational Education funded six day-care special projects during 1984-1985 offering services for vocational students. The purpose of these services was to increase students' opportunities to complete their schooling and receive high school diplomas or equivalent degrees by providing professional day care for their children. In order to decide whether or not to continue these services, it was necessary to find out if if the services had increased graduation and General Educational Development (GED) completion rates of secondary and adult vocational students.

Purpose of the Study

The purpose of this study was to provide impact information about the day-care projects in order to make decisions about continuing the funding of these projects. The objective, therefore, was to determine the impact of participation in six state funded day-care projects upon secondary and adult vocational students in the following areas:

- Graduation rates
- Course completion rates
- GED completion rates
- Attendance in school
- Grades for courses taken during the school year

Overview of the Problem

The literature on teenage pregnancy, educational attainment, and the consequences of high school dropout indicates the following:

- An increase in young teenage motherhood has occurred in the past several decades ("Teenage Pregnancies are on the Rise" 1979; "How to Keep Mothers in School" 1984).

- A growing number of young mothers remain unmarried and head their own household, (Height 1985; Moore 1979).

- The major cause of high school dropout among girls is pregnancy (DiPerna 1984; Moore 1979; Jordon 1978; Hendrixson 1979).

- Low educational attainment is related to teenage childbearing (Furstenberg 1976; Moore 1979; Presser in Waite 1978; Waite 1978).

- Low educational attainment due to school dropout leads to poor paying jobs or welfare (DiPerna 1984; Moore 1979; Height 1985; Wexler 1979).

- The dependency on financial aid is costly to federal, state, and local governments (DiPerna 1984; Hendrixson 1979; "How to Keep Mothers in School" 1984; "Teenage Pregnancies are on the Rise" 1979).

According to data from the Bureau of Census (U.S. Department of Commerce, 1984), there were five times more live births to unmarried females in 1981 than in 1950. Specifically, the birth rate for unmarried mothers under 15 years of age was almost three times higher; for unmarried mothers 15-19 years of age and 25-29 years of age almost five times higher; and for unmarried mothers 20-24 years of age was six times higher.

Prior to 1970, few schools offered educational opportunities for pregnant teenagers. Since then, the general public has realized that these teenagers need equal access to education. Wexler (1979) pointed out that until 1975 some schools excluded pregnant teenagers from regular programs. But because of Title IX, now these teens can not be excluded from school.

Waite (1978) also indicated that "young women who became pregnant while in junior high or high school were, until very recently, typically forced by school policy to leave school" (p. 846). She stated that although this policy does not hold true today, that many confounding factors, such as arranging and paying for infant care, still make it difficult for young mothers to attend school.

According to DiPerna (1984), there are approximately 560,000 children born to teenagers nationwide each year. More specific information on this population was given by DiPerna.

> According to the Alan Guttmacher Institute, 80 percent of teenage young women who drop out of school do so because they are pregnant; 90 percent of teenage mothers eventually join the ranks of the unemployed; and 66 percent eventually receive welfare payments. (pp. 57-58)

Such evidence would seem to support the idea that opportunities for educational success must be made available for these teenage mothers. Height (1985) specified that these

opportunities must be realistic in order to motivate teenage parents to remain in school and that offering child care creates such an opportunity.

The following statement from the article "How to Keep Mothers in School" from The New York Times (29 November 1984) may be representative of recent viewpoints on day care for high school mothers.

> Do such programs put schools in the baby-sitting business? No: they help schools do their job, educating students who are no less children for having borne children. . . . It would be a tragedy--and an extraordinarily expensive one besides--if their lack of schooling leads to a lifetime of public dependency.

Research Questions

The following research questions were addressed by this study:

1. What were the differences in course completion, graduation, or GED completion rates between secondary students who had day-care services for their children and those who did not?

2. What were the differences in course completion, graduation, or GED completion rates between adult students who had day care services for their children and those who did not?

3. What were the differences in school attendance rates between secondary students who had day-care services for their children and those who did not?

4. What were the differences in school attendance rates between adult students who had day-care services for their children and those who did not?

5. What were the differences in grades between secondary students who had day-care services for their children and those who did not?

6. What were the differences in grades between adult students who had day care services for their children and those who did not?

7. What were the differences for secondary and adult students using the various types of day-care services (contracted, in-school, existing) in the rates of course completion, graduation, or GED completion; attendance rates, and grades?

8. What were the relationships of secondary and adult students' gender, age, grade, race, number of children, availability of other day-care services, and vocational program to course completion, graduation, or GED completion rates, attendance rates, and grades?

Limitations of the Study

There were several limitations to this study on the impact of day-care services. These limitations can be summarized as follows:

1. This was a one-time study covering a limited period of time.
2. Introducing day-care services presented problems to some of the sites.
3. The Right to Privacy Act affected the establishment of control groups for the study.
4. Some students were not available for the entire year due to relocation or other reasons.
5. There were some errors in the data collection.

Further explanation about these limitations follows.

One Time Study

This study covered the 1984-1985 school year. Because this was a 1-year study, there was no way to make comparisons of dropout rates, completion rates or attendance rates across more than 1 year. In effect, the students studied may or may not be representative of students in day care during a different period of time.

Day Care Programs as "Start-up" Projects

The State of Ohio began funding several day-care programs in 1984. Even though Akron and Cleveland offered day care since 1980, in 1984 day care in those sites was expanded to serve parents with infants up to 18 months of age. Also, the project was new in 4 of the sites. There were many administrative difficulties in setting up these 4 sites. Some of the sites had problems with physical space and conformity to city bylaws. The Toledo site did not participate in the study because the city bylaws indefinitely delayed the infant care portion of the center from opening. Other sites opened their doors after the school year started. In these cases, the impact of the day-care services upon course completion, graduation, GED completion, attendance,

and grades was probably limited as only part of the school year was represented.

Right to Privacy Act

Constraints on the accessibility to information about individuals affected the establishment of control groups. In addition, several sites were available to obtain secondary students' grade point averages (GPAs), as all students had to give written consent to release their GPAs. Furthermore, GPAs were not available for any adult students. Therefore, research question six could not be addressed.

Also, some of the data collectors (site coordinators) were unable to use school files to find students or adults with comparable characteristics, and then randomly select those students into groups. Instead, site coordinators had to rely on their own knowledge to identify students who they thought had comparable characteristics. Thus, the control groups were not randomly selected, but rather chosen by the data collectors.

Student Situations

The open-entry system and students' relocating during the year created another problem. Students who participated in the study for less than the entire year represented only a section of time within the study, and this made it difficult to gather accurate data. Examples of student situations which influenced entry and exit from the program were transferring from one school to another in the district, moving out of the district and dropping out of school altogether.

Data Collectors

There were some errors in the way individual site coordinators recorded data. At least 2 coordinators at all but 1 site (Cincinnati) attended a 1-day workshop and received written instructions on how to record data. Even still, there were some errors in the data collection. For example, sections of the instrument that pertained to only secondary students were completed for adult students, and vise versa.

CHAPTER II

INDIVIDUAL SITE DESCRIPTIONS

The six state-funded day-care sites in this study were located in (1) Akron, (2) Cincinnati, (3) Cleveland, (4) Dayton, (5) Rio Grande, and (6) Toledo. Each city had its own individual organization for the day-care centers within its school system. These systems are depicted by organizational charts in this report. The type of day care also varied from city to city. Three types of day-care centers were identified for the day-care projects. Type I was a new day-care center within a public school facility, type II was an existing day-care center within a public school facility; and type III arranged contractual services in non-public school centers.

Information on each individual site was obtained from documents submitted by each site and through questionnaires concerning organizational structure, descriptive information, and assessments of program problems. This information was provided by day-care project coordinators at the training workshop. Information concerning selection criteria, characteristics of day-care personnel, monitoring and evaluation procedures is summarized by site in this chapter. The instrument used for data collection is contained in appendix B. The questionnaires completed by the day-care coordinators at the training workshop are found in appendix C.

Akron

Akron Public Schools had three day-care programs, all of which were type II, existing school centers. Figure 2.1 indicates the placement of the day-care program within Akron's school system.

One of the locations, site 1--South Education Center--had students enrolled in Graduation Occupation and Living Skills (GOALS) and GED programs. The second site--Edgewood--was secondary. The third program, the Teen Parent Center, was the only program which provided day-care services for both secondary and adult students.

Additional descriptive information on the three adult or secondary Akron programs such as dates the programs started, the number of students, the number of children, and the ratio of children to adults is summarized in table 2.1.

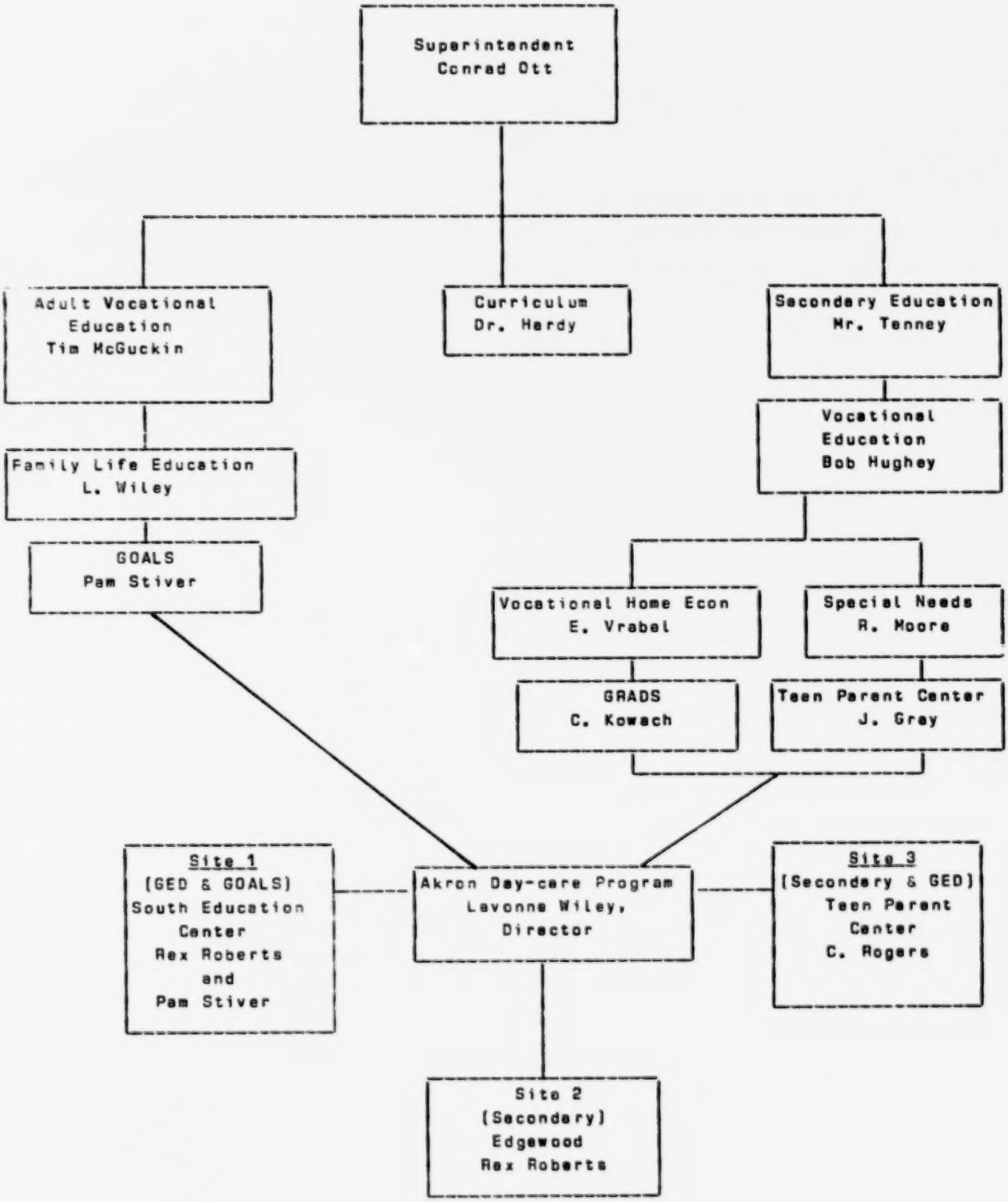

Figure 2.1 Akron organizational chart

TABLE 2.1
AKRON DAY-CARE PROGRAM
DESCRIPTIVE INFORMATION

Akron Sites	Type of Day Care	Date Started	Secondary Students		Adult Students		Ratio of Children To Adults
			Number of Students	Number of Children	Number of Students	Number of Children	
1	II	Sept. 1984	0	0	27	31	3:1
2	II	Sept. 1984	17	18	0	0	3:1
3	II	Sept. 1984	21	22	3	3	4:1

Ninety-six secondary students applied to the day-care programs in Akron. Thirty-eight secondary students (40 percent) were accepted. Seventy-three adults applied for the program and thirty students (41 percent) were accepted.

Selection Criteria

The selection criteria which were used in Akron were the following:

Secondary Selection Criteria	Reasons for Refusal
• Early childhood education students • Vocational education students • Children must be 3 months to 3 years old	• Space limitations • Age of children • Transportation problems

Adult Selection Criteria	Reasons for Refusal
• High school was not completed due to child care problems • Children must be 3 months to 3 years old	• Students did not follow up • Space limitations • Transportation problems

Day Care Personnel

The Teen Parent Center was staffed with one full-time aide and two child-care service co-op students. The GOALS program had an early childhood teacher who was responsible for its two programs, the South Education Center and the Edgewood Community Center. The South Education Center had two full-time aides, two part-time aides, and one co-op student. The Edgewood Community Center was staffed by two full-time aides and one co-op student.

Monitoring and Evaluation

1. Records were kept for each student and for the children served.

2. A questionnaire was completed by parents to determine the effect child-care/parenting information had on students' perception of family life.

3. Statistics on number of students using child care who completed high school or equivalent degrees were submitted in an annual report.

Cincinnati

Site coordinators from the Cincinnati day-care program were not able to attend the training workshop due to labor problems. The instruments for data collection were mailed to the site coordinators. Also mailed at a later date were the questionnaires completed by other coordinators at the training workshop concerning organizational structure, descriptive information and assessments of program problems. Based on data provided regarding the end results of the day-care program, the fact that the day care was new was known. However, other information was not reported for the Cincinnati site due to nonresponse to the questionnaires.

Cleveland

Two day-care programs were offered in the Cleveland Public Schools. Figure 2.2 shows the fact that 1 day care program was an existing program and the other was new.

Table 2.2 shows the descriptive information for the two Cleveland day-care programs. As indicated in the figure, one day-care program was for secondary students and the other for adult students.

The day care program at East Tech, site 2, in Cleveland was the new program which was instituted in February 1985. Therefore, not all descriptive information collected during the training workshop for data collectors, 21 February 1985, was available at that time.

Selection Criteria

Although the application and acceptance figures were not available for secondary students, the selection criteria were. However, information on adult student registration was available. Ninety percent of adults who applied were accepted.

Secondary Selection Criteria

- Vocational education students
- East Tech/South Cluster students (priority)
- East Side school students in vocational education
- Regulations and policies of day care and school must be met

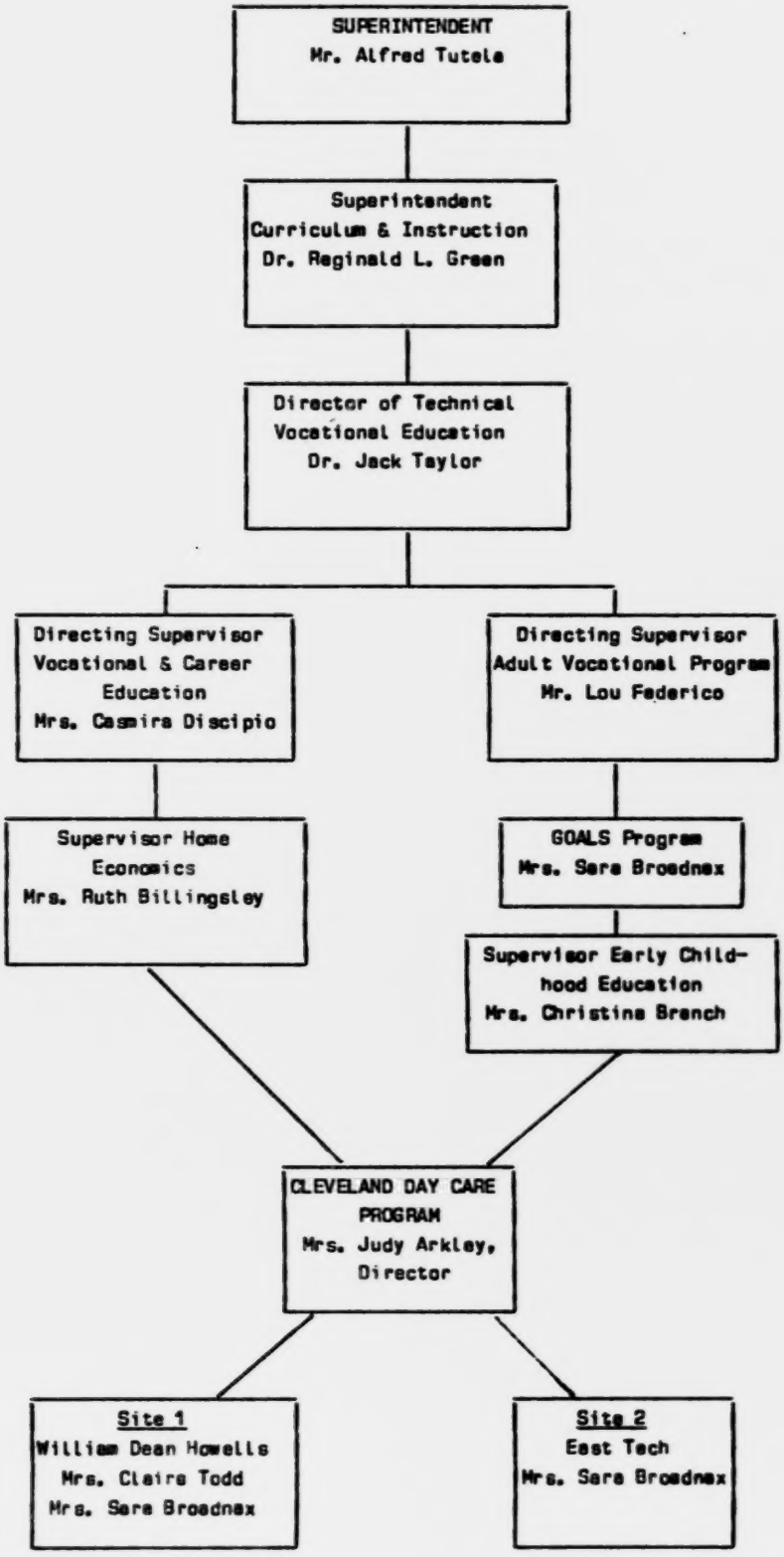

Figure 2.2 Cleveland organizational chart

TABLE 2.2

CLEVELAND DAY-CARE PROGRAM
DESCRIPTIVE INFORMATION

Site	Type of Day Care	Date Started	Secondary Students		Adult Students		Ratio of Children To Adults
			Number of Students	Number of Children	Number of Students	Number of Children	
1	II	Sept. 1984	0	0	63	42	4:1
2	I	Feb. 1984	N/A	N/A	0	0	N/A

NOTE: N/A Not available

Adult Selection Criteria	Reasons for Refusal
• High school dropout • 16-to-25-years-old • Young parent or pregnancy for a parent	• Students did not follow through

Dayton

There were seven day-care centers used by the Dayton Public Schools. All seven centers were of type III, contractual services in non-public school centers. Figure 2.3 illustrates that they stemmed from the Dunbar Child-Care Job Training Program, which, in turn, was directly linked to the Dayton Public Schools.

Descriptive information shown in table 2.3 indicates that the number of children in each day care was minimal. This system of using several contractual day-care programs throughout the city, was planned to answer individual student needs, particularly when considering proximity to the centers and transportation problems.

Selection Criteria

Forty-two secondary students applied to the day-care program and 24 (57 percent) were accepted. As indicated in figure 2.3 there were no adult students using the Dayton day-care program.

Secondary Selection Criteria	Reason for Refusal
• Vocational education students	• 12 pending • 6 students withdrew their applications

Rio Grande

There was one day-care center, Buckeye Hills Career Center Infant Day Care Center, in the Rio Grande program. It was situated in the Human Resource Center of the Gallia-Jackson-Vinton Joint Vocational School District and was serving the Graduation Reality and Dual-Role Skills (GRADS) program. Figure 2.4 shows the day care program's placement in the organizational structure of the Gallia-Jackson Joint Vocational School District.

The day-care center was a type I center, or in other words, a new center within a public school facility. It served secondary GRADS students only. Table 2.4 displays the descriptive data on the center.

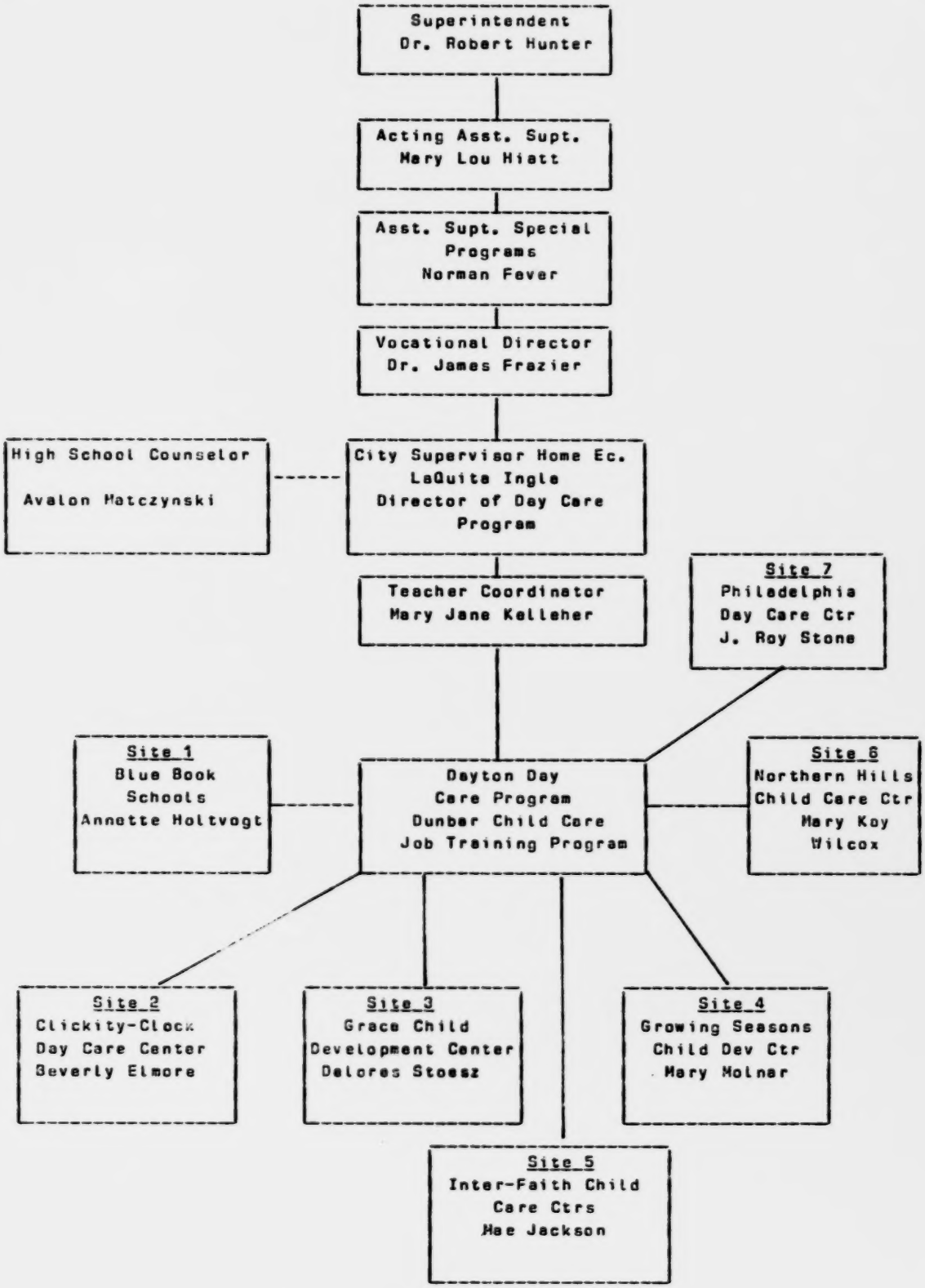

Figure 2.3 Dayton Organizational Chart

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TABLE 2.3
DAYTON DAY-CARE PROGRAM
DESCRIPTION INFORMATION

Site	Type of Day Care	Date Started	Secondary Students		Adult Students		Ratio of Children To Adults
			Number of Students	Number of Children	Number of Students	Number of Children	
1	III	N/A	1	1	0	0	8:1
2	III	N/A	1	1	0	0	15:1
3	III	N/A	1	1	0	0	8:1
4	III	N/A	13	13	0	0	8:1
5	III	N/A	3	4	0	0	8:1
6	III	N/A	3	3	0	0	8:1
7	III	N/A	1	1	0	0	8:1

NOTE: N/A Not available

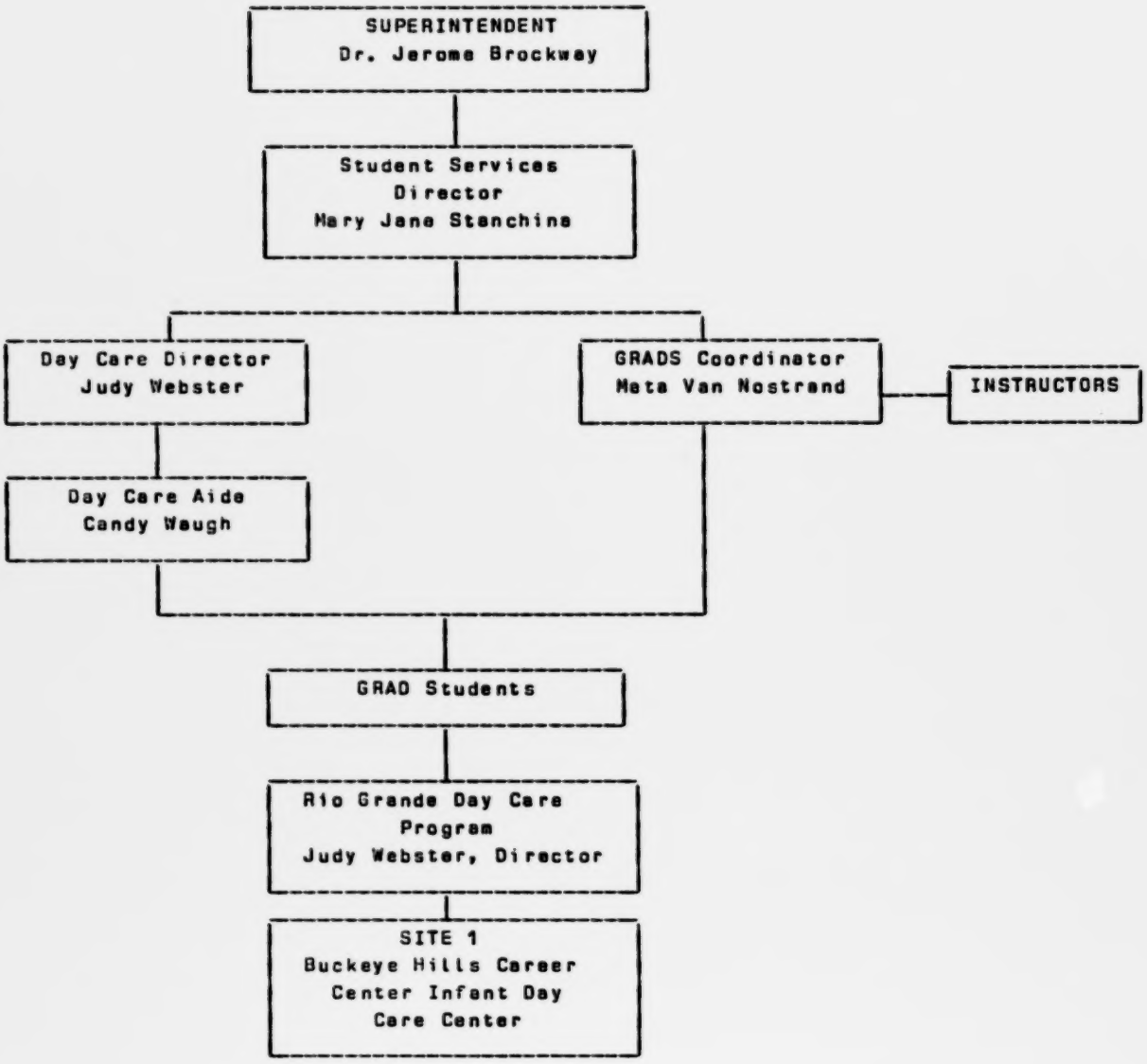


Figure 2.4 Gallia-Jackson-Vinton JVSD, Rio Grande organizational chart.

TABLE 2.4
GALLIA-JACKSON-VINTON JVSD
DESCRIPTIVE INFORMATION

Site	Type of Day Care	Date Started	Secondary Students		Adult Students		Ratio of Children To Adults
			Number of Students	Number of Children	Number of Students	Number of Children	
1	I	Oct. 1984	4	5	0	0	8:2

Selection Criteria

About one-quarter of secondary student applicants were accepted for the program.

Secondary Selection Criteria	Reasons for Refusal
• GRADS program participants • Date of application • Overt display of interest in program by student • Availability of alternative day care	• Transportation problems • Child too old • Student withdrawal or change of plans • Center is not a licensed day care therefore has numbers limitations

Toledo

Toledo Public Schools had intended to use one day care center, Toledo Day Nursery, situated in Jefferson Center. The day care center's services were to be offered to GOALS and home economics students. The organizational chart for Toledo Public Schools (figure 2.5) shows the linkage of the day care to the school system.

Toledo Day Nursery was a contractual service in a non-public school center, a type III day-care service. At the time of the training workshop, February 1985, the program was not yet operational for the Jefferson Center location. The program eventually did not receive its day-care license because of complications with the building code regulations. Therefore, the Toledo site was not included in this study as it did not become operational.

Descriptive information completed at the training workshop indicated that the Toledo site planned to serve both secondary students and adults. The breakdown of this information for the intended day care program is displayed in table 2.5.

Selection Criteria

Criteria to select both secondary students and adults for the program had been established at the time of the training workshop. The criteria for each group was as follows:

Secondary Student Selection Criteria

- Positive past school attendance record
- Commitment to stay in school
- No other means of day care
- Priority given to senior students
- Obligatory attendance to the parent education programs after school

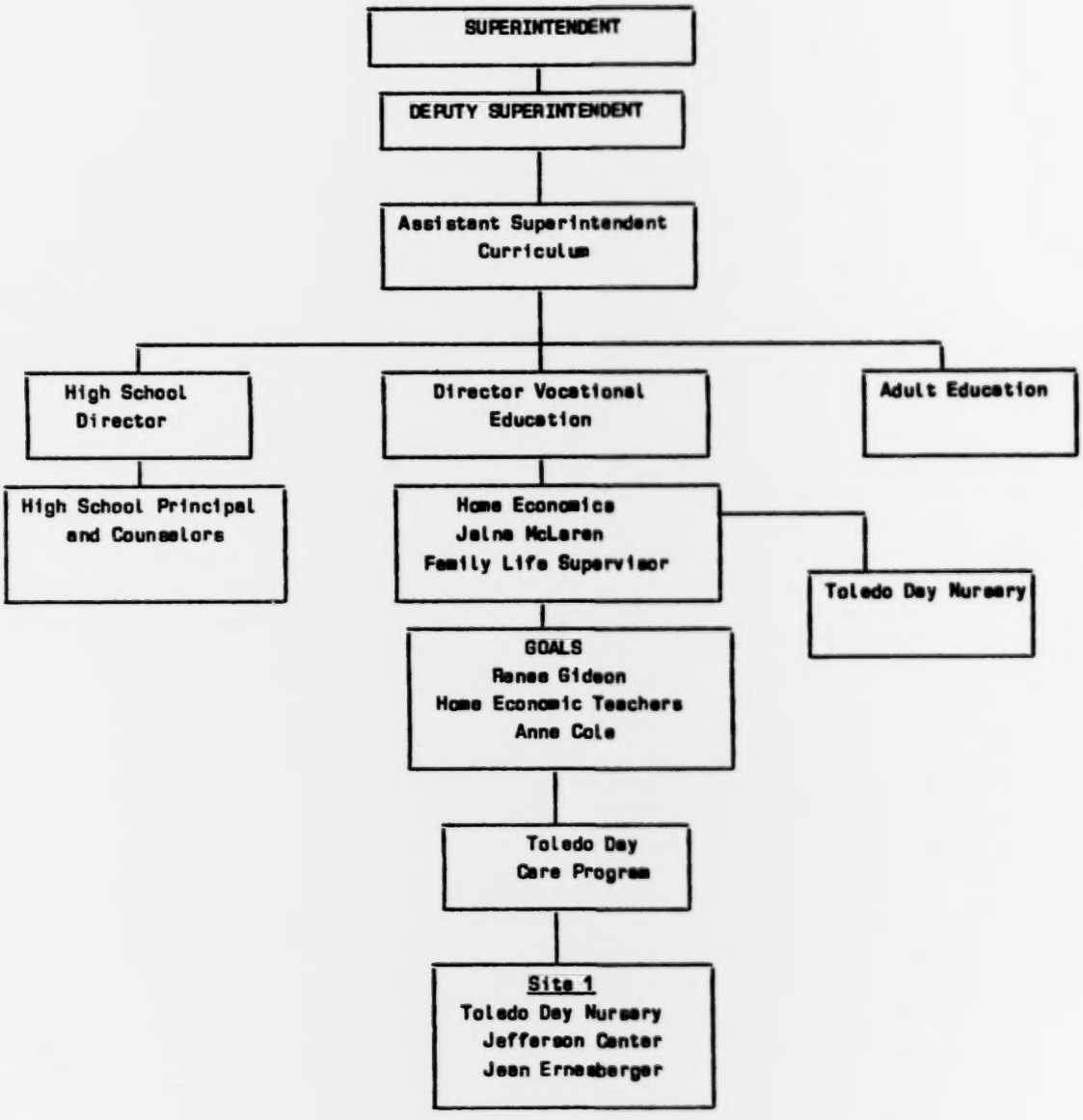


Figure 2.5 Toledo organizational chart

TABLE 2.5
TOLEDO DAY-CARE PROGRAM
DESCRIPTIVE INFORMATION

Site	Type of Day Care	Date Started	Secondary Students		Adult Students		Ratio of Children To Adults
			Number of Students	Number of Children	Number of Students	Number of Children	
I	III	Not Available	6	6	6	6	3:1

Adult Selection Criteria

- No other means of day care
- Responsibility for their own transportation
- Submit personal references or must attend monthly parent education program
- Must be committed to attend the GOALS program until completion

Appraisals of Coordinators of Their Day Care Programs

During the 1-day training workshop, the day-care coordinators were asked to indicate whether their day-care program had experienced particular problems. In addition, the day-care coordinators were asked to make recommendations to improve their day-care programs, prioritize spending, and identify benefits of their programs. The following list of questions were those presented to coordinators during the 1-day training workshop:

1. What are the most critical problems you have related to your DAY-CARE program?

2. Aside from more $$, what are your recommendations for improving the program?

3. If more $$ were available for FY 85-86, say $50,000 for your program, how would you spend it?

4. If you had to cut your program in half for FY 85-86, what would you eliminate?

5. Describe as many benefits of this program that you personally have witnessed or have reliable reports of occurring.

Of course, day-care coordinators responded to these questions while the day-care programs were being administered, not after the programs were completed at the end of the school year. Clearly, the responses of coordinators were preliminary. The tables presented next are a summary of day-care coordinators' responses to these questions.

TABLE 2.6

CRITICAL DAY-CARE PROBLEMS
IDENTIFIED BY COORDINATORS

Critical Day-care Problems	Day-care Sites					
	Akr	Cinn	Cleve	Dayt	Rio Gr	Tol
Acceptable space or renovation to meet licensing requirements and building regulations	X					X
Lack of space	X					
Transportation to the centers	X		X	X	X	X
Lack of support for the day-care program in general			X			
Available time for inservice training [parenting education] for the student parent			X			
Convenient quality sites for the students				X		
Illness of key persons prevented successful start-up				X		
Completion of licensing procedures to obtain a day-care license					X	X

TABLE 2.7

RECOMMENDATIONS FOR IMPROVING DAY-CARE PROGRAMS
IDENTIFIED BY COORDINATORS

Recommendations for Program Improvement	Day-care Sites					
	Akr	Cinn	Cleve	Dayt	Rio Gr	Tol
Locate child care sites within each high school to solve transportation problems	X					
Increase sites around the city	X					
Increase qualified personnel for the day-care services	X		X			X
Raise age level for parents and children	X					
Receive assistance form the State Department of Education to facilitate licensing procedures	X					
Operate the day-care program within the school system, not on a contractual basis						X
Provide or improve transportation to the various centers			X	X		
Create the school system, own centralized centers				X		
Provide parenting education for the student parents			X			
Obtain and place equipment and supplies in a more timely manner			X			
Program too young to make recommendations					X	

TABLE 2.8

SPENDING PRIORITIES IDENTIFIED BY COORDINATORS

Spending Priorities	Day-care Sites					
	Akr	Cinn	Cleve	Dayt	Rio Gr	Tol
Open more day-care facilities for areas served at present and in the future	X					
Renovate one classroom in each high school to provide on-site day care for both students and teachers	X					
Bring present facilities up to code	X					
Provide transportation to the day-care center			X			X
Purchase vehicles to provide transportation to the centers				X		
Allocate and renovate school space for the school system's own day-care center				X		
Create day-care services for older children also					X	X
Acquire more supplies and equipment			X		X	

TABLE 2.8

PROGRAM CUTS IDENTIFIED BY COORDINATORS

Cuts to Reduce Budget	Day-care Sites					
	Akr	Cinn	Cleve	Dayt	Rio Gr	Tol
Offer the day-care services only to students with two or more children	X					
Eliminate program altogether, as what exists is not sufficient; therefore to reduce it would be inefficient	X					
Eliminate one of the day-care centers	X		X			
Eliminate the technicians presently employed and use students with children enrolled in the day care to carry out the technicians' duties			X			
Maintain things as they are at present					X	
Encourage the school to incur the expenses to allow the program to continue					X	
Reduce the number of students receiving day-care services				X		
Program too new to answer this question						X

TABLE 2.10

BENEFITS OF THE PROGRAM IDENTIFIED BY COORDINATORS

Benefits of Program	Day-care Sites					
	Akr	Cinn	Cleve	Dayt	Rio Gr	Tol
Increases students' educational completion and grades	X		X	X		X
Improves student attendance at school	X		X	X		
Provides quality care and nutrition for children			X			
Serves as a training site for vocational child care			X			
Provides work experience and a salary for co-op students			X			
Teaches parenting and life skills to GOALS students	X					
Students are eager to participate			X			
Is supported by high school staff			X			
Improves levels of infant development and self-image	X		X			
Creates a safe environment for the infant	X					
Improves parents' self-concept, self-sufficiency, and parenting skills	X		X	X		X
Gives support system to teens in crisis situations	X					
Offers quality and consistent care to the children				X	X	
Renews hope for students				X		
Reinforces child care as learned by GRADS						X

CHAPTER III

METHODOLOGY AND PROCEDURES

This chapter presents the research design for the study, research methods, and description of the population. The section of the chapter entitled "Methods" covers the development of the data collection instrument; the workshop for training day-care personnel to collect data; the process for analyzing data, including statistical analysis; and, finally, a summary of how data are reported in the following chapters.

Research Design

A quasi-experimental design, identified by Campbell and Stanley (1963) as the nonequivalent control group design, was used. This research design was chosen because it was not possible to select students randomly to participate in the six day-care projects or to assign students randomly to groups, day-care services and non-day-care services. Rather, the total population of secondary and adult students who applied for day-care services was divided into two groups. One group received day-care services, and a second group did not. A latter section of this chapter entitled "Population" explains how the population was divided into two groups and describes the two groups.

In order to determine to what extent the two groups of secondary students were different, GPAs were obtained prior to the beginning of the project and again at the conclusion of the project. (GPAs could not be obtained for any of the adult students.) Descriptive information regarding the characteristics of individuals, their families, and their school experiences was also gathered to determine the similarities between secondary and adult students in the two groups.

Figure 3.1 illustrates the evaluation design that compared descriptive, end-result data for those students receiving day care and those students not receiving day care. The top of the figure illustrates the comparison of secondary and adult students who received day care to non-receipient secondary and adult students. During the first stage of data analysis, these comparisons are made for each of the individual sites. During the second stage, data are aggregated for all secondary students across all sites and compared to all secondary students that did not receive day care. The same procedure was used to analyze data for adults across all sites.

Analysis of the data during the first stage indicated that the matrix design for both secondary and adult groups, did not apply to each of the six sites. Akron, Cincinnati, and Cleveland had some students at both the secondary level and the adult level. However, of these three sites, Akron was the only site that had a sufficient number of both secondary and adult students for the matrix design to apply. The analysis was modified slightly to accommodate secondary students and adults in Cincinnati and Cleveland. Cincinnati had only four adults and Cleveland only seven secondary students.

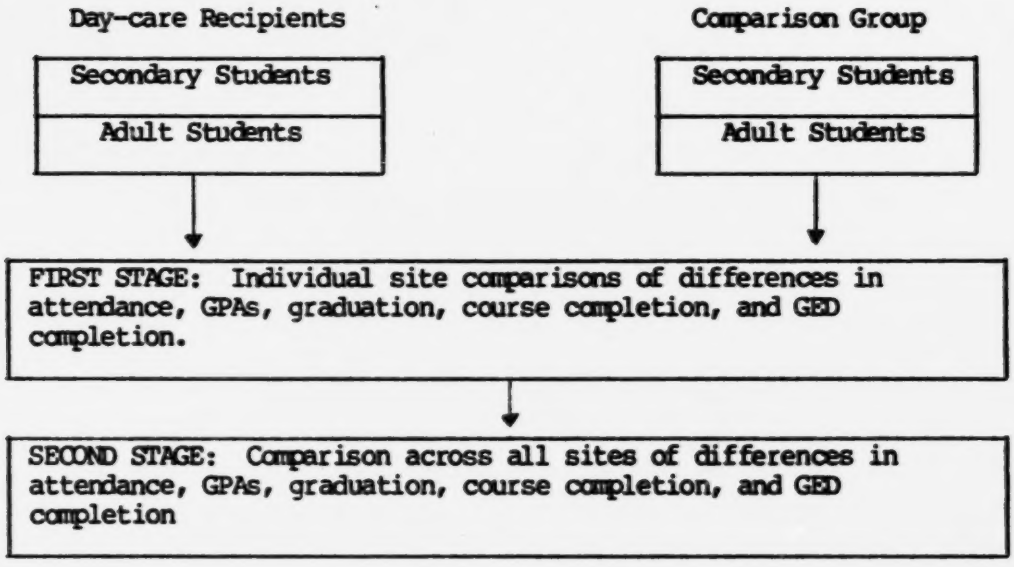

Day-care Recipients
Secondary Students
Adult Students
Comparison Group
Secondary Students
Adult Students
FIRST STAGE: Individual site comparisons of differences in attendance, GPAs, graduation, course completion, and GED completion.
SECOND STAGE: Comparison across all sites of differences in attendance, GPAs, graduation, course completion, and GED completion

Figure 3.1. Matrix design for the impact evaluation

Therefore, for these two sites, the secondary and adult students were combined for analysis purposes. The percentages of secondary students and adults in the combined group were reported with the results. Table 3.1 displays the frequency counts for the sites before the adjustment, and table 3.2 displays frequency counts for those sites (Cincinnati and Cleveland) after the adjustment.

One of the remaining sites, Rio Grande, had only three secondary students. Thus, the sample was too small for meaningful data analysis and this information was discussed only when the

second stage of data analysis was conducted across all sites. Finally, the first and second stages of analysis were conducted with the two groups of secondary students in Dayton. There were no adults in the Dayton project.

TABLE 3.1

NUMBER OF SECONDARY AND ADULT STUDENTS RECEIVING DAY-CARE SERVICES VERSUS THOSE RECEIVING NO DAY-CARE SERVICES BY SITES AND BEFORE ADJUSTMENTS

Sites	Day care		No Day care		Unknown
	Secondary	Adult	Secondary	Adult	Student type
Akron	40	22	37	24	1
Cincinnati	15	4	19	0	0
Cleveland	7	30	1	36	0
Dayton	24	0	24	0	0
Rio Grande	3	0	3	0	0

TABLE 3.2

NUMBER OF SECONDARY AND ADULT STUDENTS RECEIVING DAY-CARE SERVICES VERSUS THOSE RECEIVING NO DAY-CARE SERVICES BY SITES AND AFTER ADJUSTMENTS

Sites	Day care	No Day care
	Secondary and Adult	Secondary and Adult
Cincinnati	19	19
Cleveland	37	37

Methods

There were four major tasks in this project. Each was completed through several subtasks, as shown in the figure in appendix A and described in the following paragraphs.

The first task was to design evaluation procedures and instruments (1.0). This included specifying the evaluation procedures (1.1), and identifying of the descriptive data--sex, race, grade, number of children, vocational program, availability of other day-care services--and end-result information--school year completion, graduation, GED completion, final grades, and attendance in school (1.2). After the sponsor reviewed the procedures and instruments (1.3), National Center staff revised the instruments. The instruments were then duplicated (1.4) and distributed to the day-care projects. This activity was occurring at approximately the same time training was occurring for day-care personnel (see the following discussion). Personnel at the day-care centers administered the instruments and collected the data from 164 day care recipients and 145 non-day-care users.

The second task was to train day-care personnel at the six projects in using the instruments to collect data at their sites (2.0). The training procedures were designed to be completed in one day (2.1). Table 3.3 shows the percentage of time allocated to each training workshop activity. The participants--site coordinators or other personnel working on the six funded day care projects--were selected by the sponsor and National Center staff. The training was conducted at the National Center in Columbus, Ohio (2.3). Table 3.4 indicates the number of participants by organization. National Center staff maintained telephone contact with the trained day-care personnel to ensure that the data collection was conducted as planned (2.4).

The third task was to process and analyze the evaluation information collected by project personnel (3.0). Descriptive data and end-result data were collected by the trained project personnel (3.1) and sent to the National Center staff. National Center staff coded data (3.2) and supervised data entry into the computer (3.3).

Following the receipt of the data, it was necessary to review and standardize answers to several parts of the questionnaire, as sites had responded differently. Data were then keypunched, and a computer program was designed to analyze the data for each site and across all sites (3.4). The program was used to generate the tables (3.5), and the results were then analyzed (3.6).

TABLE 3.3

AGENDA AND TIME ALLOCATED TO THE TRAINING WORKSHOP

Activity	Percent of Time Allotted
Introduction	3.3
Overview of Day care project Purpose of training	6.7
Objectives of the Evaluation Procedures of the evaluation Role of Day care staff Introduction to data collection forms	30.0
Practice with data collection forms	40.0
Review of procedures and due dates	20.0
TOTAL	100.0

TABLE 3.4

TRAINING WORKSHOP PARTICIPANT LIST

Organization of Participants	Number of Participants
Akron	4
Dayton	3
Cincinnati	0
Cleveland	4
Rio Grande	3
Toledo	2
National Center staff	2
Ohio Department of Education, Division of Vocational Education: Home Economics Section	2

The computer analysis program was of three types. First, a printout of all the data, exactly as it had been keypunched from the instrument across all sites, was provided. Frequency counts were conducted, and age, grade, attendance rates, and distance categories were then used to reduce the data to manageable proportions. Second, crosstabulations and other statistical analyses were specified and then conducted for all sites. Preliminary data analysis indicated that the two groups were unequal in size. The two groups were equalized to 145 in each group by matching similarities, using types of student (i.e., secondary or adult); age, and number of children as characteristics. The number of secondary students and adult students receiving day care and those without day care are shown in table 3.5. Further statistical analyses were then conducted to help understand and explain the research findings.

An analysis was conducted for each individual site. As specified earlier in this report, from the six original sites, only five submitted information: Akron, Cincinnati, Cleveland, Dayton, and Rio Grande. Of the five participating sites, only four offered enough data for computer analyses. They were Akron, Cincinnati, Cleveland, and Dayton.

The Statistical Package of the Social Sciences (SPSS) was used for the statistical analysis. Frequency distributions, crosstabulations, the chi-square, and correlations (Cramer's V and Pearson Product-Moment Coefficients) were the statistical procedures used to answer the research questions.

TABLE 3.5

NUMBER OF SECONDARY AND ADULT STUDENTS
BY DAY-CARE PROGRAM PARTICIPATION

	Secondary Students	Adult Students	Unknown	Total
Day Care	89	56	0	145
No Day Care	84	60	1	145
Total	173	116	1	290

The fourth and final task was to report the findings (4.0). National Center staff shared a preliminary table of contents for the report with the sponsor (4.1) on 9 August 1985. Based on the outline, a draft report was prepared for sponsor review for accuracy in describing project sites and participants (4.2). The final report was then completed and delivered to the sponsor (4.3).

Population

Six day-care centers were funded by the Home Economics Section of the Ohio Department of Education Division of Vocational Education. This study included all of the six day-care sites and all students from those sites who were registered or had been registered. Therefore, the sample was the total population of the day-care centers. The selection of secondary students and adults into the day-care group was based on the following criteria:

- They must be enrolled in a unit funded vocational education program for school year 1984-1985
- They must be working toward a high school diploma or GED
- They must be enrolled in a full-time vocational education program which is non-traditional for their sex or GED program for the school year 1984-1985, (Adults only)
- They must receive parenting/child development information during the 1984-1985 school year
- They must receive child care services for their infants, preschool, and school-age children

The individual coordinators of each site were requested to find a comparison group of non-day-care students for their respective day-care project. Individuals similar to the students receiving day-care services were purposively selected. Some of the primary characteristics used to select the comparison groups were whether or not individuals were secondary students and enrolled in high school or adults and enrolled in adult education, or mothers or fathers raising their own children. Specifically, they had to be secondary or adult students that had not finished secondary education, and that were parents with a need for day care for their own children. The comparison groups of secondary students and adults, although similar to the day-care groups, were different since the need for day-care services was perceived by coordinators to be less severe than that of secondary and adult students chosen to receive day-care services.

Description of the Population

Descriptive data about the population of secondary students and adults studied are summarized next. These data describe the individual characteristics, family characteristics and high school experiences of secondary students and adult students who had children in day care and for those who did not. Because many of the characteristics were used to match the two groups of students and adults, the percentages were sometimes very similar for the two groups. Missing data were excluded from most of the frequency distributions presented in the tables in the remaining portions of this report since there was no reason to believe missing data would bias the findings.

Information comparing secondary students and adults in day care to those not provided with day care across all sites is presented in table D.1 in appendix D. The largest group of students was in the 16-18 age bracket. Equal numbers of secondary students ages 16-18 were in the day-care and non-day-care groups. However, a comparison of adult students who had children in day care with those who did not revealed that while 36 percent of the adults receiving day care were between 16 and 18, about 58 percent of the adults not receiving day care were between 16 and 18. Slightly over 64 percent of adults who had children in day care were between 19 and 29, compared to 42 percent of adults ages 19-29 in the non-day care group.

There were slight differences in the grades in school of the two groups of secondary and adult students. Most of the secondary students receiving day-care services were enrolled in grades 11 or 12 (61 percent), but the secondary students without day-care services were split about evenly between grades 9 and 10 (48 percent) and grades 11 and 12 (51 percent). The fact that more secondary students in day care were nearing completion of high school probably contributed to higher graduation rates in their group than in the comparison group.

Finally, in regard to individual characteristics, the majority of students, both secondary and adult, were black. Most of the remaining secondary students and adult students were white. Only one secondary student using day care was male.

Family characteristics shown in table D.2 in appendix D revealed similarities between secondary and adult students in the two groups. Over 93 percent of all the secondary students and over 75 percent of all adults were single. There was a slight difference in the marital status of adults who received day-care services as opposed to adults who did not: 25 percent of adults receiving day care were divorced or separated, and only 9 percent of adults without day care were divorced or separated. The majority of secondary students and adults had only one child; however, at least 33 percent of adults had more than one child.

The two groups of secondary students and adults were similar in regard to the ages of their children. The majority of secondary students indicated their first child was between 1 and 12 months old. The first child of adults was generally slightly older. Nearly 30 percent of the adults had a first child between 2 and 3 years old.

The largest proportion of secondary students were living with one parent, (over 46 percent), the largest proportion of adults were living alone, (over 36 percent). However, at least 27 percent of the adults were living with one parent. There were some slight differences between the living arrangements of the two groups of secondary students. About 33 percent of secondary students not receiving day care were living with both parents, compared to only 12 percent of the secondary students who were receiving day care. Although 18 percent of secondary students with children in day care were living alone, only 4 percent of secondary students who did not have children in day care were living alone.

Secondary students who received day care were much more likely to have no alternative day care, (28 percent), than secondary students not receiving child day-care services, (10 percent). Of course, as stated previously in this report, the need for day care was one criterion for selection into the day-care project. Adults receiving day care were only slightly more likely to have no other day care available (42 percent) than adults not receiving day-care services (35 percent). A high proportion of both secondary students (54 percent) and adults (at least 34 percent) were likely to turn to family to provide alternative day care.

The distance from home to school was similar for the two groups of adults: 76 percent of the adults receiving day care and 78 percent of the adults who did not lived within five miles of their school. As shown in table D.3 in appendix D, the majority of adults in both groups also took the city bus to school--55 percent and 80 percent respectively.

There were, however, slight differences in the distance from home to school for the two groups of secondary students. Although 47 percent of the secondary students receiving day care lived 3 miles or more from school, only 34 percent of the secondary students without day care lived 3 miles or more from school. Most secondary students (62 percent) receiving day care and secondary students (46 percent) without day care rode the school bus. Secondary students in both groups were also likely to ride the city bus to school. Secondary students were slightly more likely than adults to be transported to day care by family (49 percent). Over 9 percent of both groups of secondary students and adults walked to school.

As shown in table D.3 in appendix D there was only slight variation between the two groups of secondary students as to the

educational program studied. These findings indicated that the primary or first choice secondary education programs studied by most secondary students using day care (53 percent) and without day care (71 percent) were consumer and homemaking education, occupational home economics and Graduation Reality and Dual-Role Skills (GRADS). The largest proportion of both groups of secondary students represented next business and office education (23 percent of secondary students using day care and 13 percent of students not using day care). Fewer students in both groups studied trade and industry, health occupations or some other area.

In contrast to secondary students, there were more differences in the adult education programs studied by adults using day care and adults without day care. The largest proportion of adults in day care had been enrolled in GOALS (7 percent). And only about 39 percent of adults not receiving day care services were enrolled in GOALS. The largest proportion of adults without day care had been enrolled in ABE-GED (50 percent). Only about 11 percent of adults receiving day-care services had enrolled in ABE-GED.

Table D.4 in appendix D displays the percentages of secondary students and adults, combining those who received day care with those who did not in their first and second program areas. The data recorded in the table indicates that the majority of students in both groups were in home economics programs.

It was interesting to note that most of the secondary students (54 percent), regardless of participation with day-care services, found out about the day-care program through a teacher. Adult students, on the other hand, were equally likely to learn of day care from a friend (21 percent) as a teacher (21 percent). Also, human services agencies notified 14 percent of the adult students and only about 2 percent of secondary students about the day-care program.

CHAPTER IV

FINDINGS FOR ALL SITES

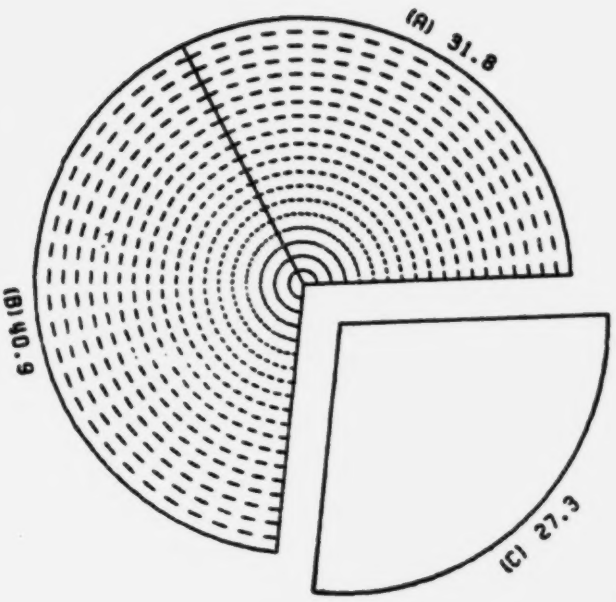
In this chapter, seven of the eight research questions are discussed for all sites. Question six could not be answered as GPAs were not available for adults. These results compared day-care recipients from all the sites to a comparison group of students from all sites who received no day care.

Further analysis was conducted to determine whether living arrangements, alternative day care, distance from school, and mode of transportation were related to type of completion, GPAs, and attendance. These four variables will be discussed for each question.

> Research Question 1:
>
> What were the differences in course completion, graduation, or GED completion rates between secondary students who had day-care services for their children and those who did not?

Figures 4.1-4.4 show a substantial difference in graduation and course completion between secondary students who had day care services for their children and students who did not. Data were missing for 1 secondary student who received day care and 59 secondary students who did not. Thirty-two percent of all day-care recipients graduated as opposed to 16 percent of the comparison group. When only 12th-grade students were compared, students who participated in day care were slightly more likely to graduate than students who did not. Whereas 76 percent of 12th grade students in day care graduated, 57 percent of 12th graders in the comparison group graduated. Also, of all day-care recipients, 41 percent completed courses compared to 24 percent of the comparison group. There would, even though the differences were not profound, appear to be a positive relationship between graduation or course completion and the provision of day care.

It is important to note that the reason for leaving school was not obtained for 74 percent of the secondary students who had not received day care. Of these remaining secondary students, only seven were in the 12th grade and eligible to graduate. Of those 12th grade students, 57 percent graduated. Furthermore, of

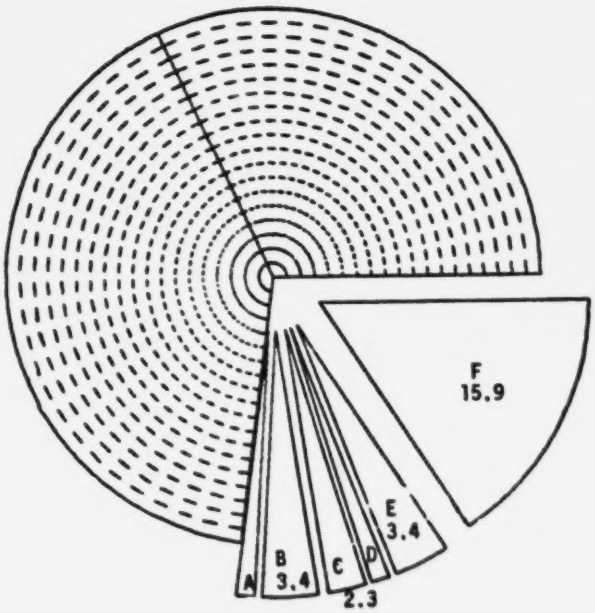


KEY

Day Care (N = 88)

A = Graduated
B = Completed Course
C = Left for Other Reasons

Figure 4.1 Percentages of graduation and course completion for secondary day-care recipients across all sites.



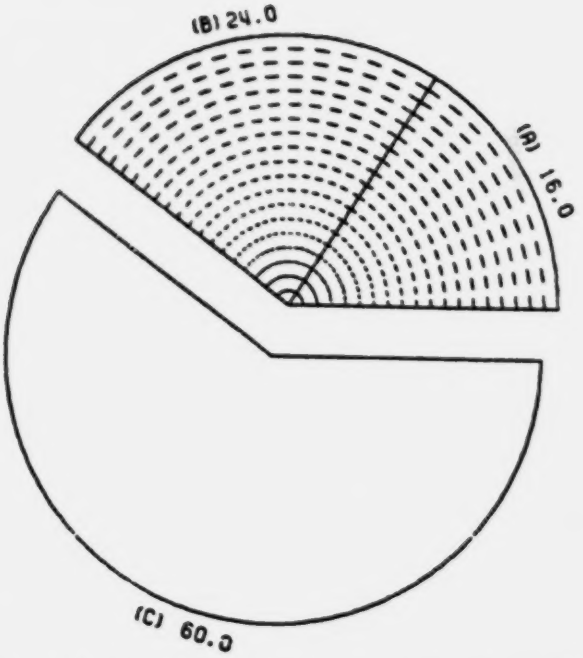
KEY

Day Care: Other Reasons for Leaving

A = Moved
B = Went to Regular School
C = Used Other Day Care
D = Didn't Like
E = Dropped Out
F = Other

NOTE: Chi-square = 9.26 with 2 degrees of freedom for figures 4.1 and 4.3.

Figure 4.2 Percentages of other reasons for leaving for secondary day-care recipients.

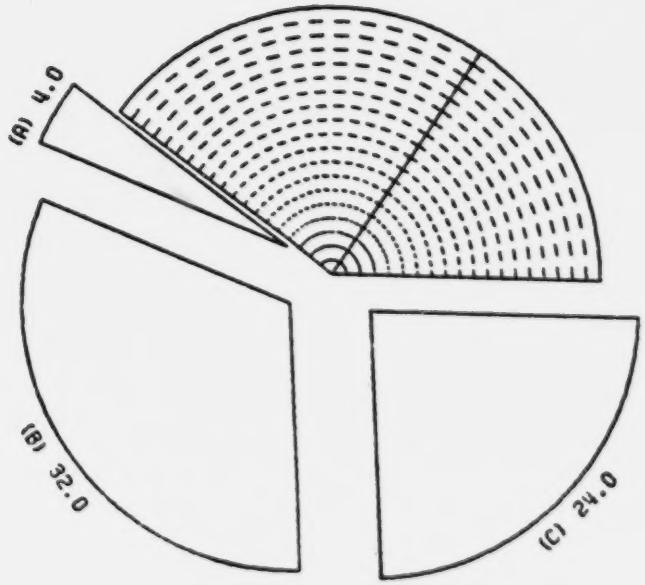


KEY

No Day Care (N = 25)

A = Graduated
B = Completed Course
C = Left for Other Reasons

Figure 4.3. Percentages of graduation and course completion for secondary students not receiving day care across all sites.



KEY

No Day Care: Other Reasons for Leaving

A = Went to Regular School
B = Dropped Out
C = Other

Figure 4.4. Percentages of other reasons for leaving for secondary students not receiving day care.

the 16 other secondary students in grades 9-11, 31 percent completed courses whereas the rest had some other reason for leaving school. Regardless of missing data, these findings confirm the earlier finding that the day-care program had a positive impact on course completion and further suggested a positive influence on graduation as well.

Reasons for leaving school other than graduation applied to 27 percent of day-care recipients and 60 percent of the comparison group. The greatest difference between the two groups was the reason of dropout. Dropout was defined independently by the coordinators completing the questionnaire for the different sites. Therefore, the definition may have differed between coordinators and the way it has been defined in various other research studies. Only 3 percent of all secondary day-care recipients were identified as dropouts as opposed to 32 percent of students in the comparison group. This implies that there was also a positive impact of day care on the dropout rate of secondary students.

A more in-depth analysis using the four variables identified in the introduction indicated the following results. Most students in both groups lived with either both or one of their parent(s) and frequently used their parent(s) as the source of alternative day care. Furthermore, there was no relationship between mode of transportation and graduation and course or GED completion for secondary students. However, it appeared that secondary students receiving day-care services who lived greater distances from school were slightly more likely to graduate or complete courses than those students who did not receive day care.

Research Question 2:

What were the differences in course completion, graduation, or GED completion rates between adult students who had day-care services for their children and those who did not?

There was a difference in course completion and GED completion rates between the adult students receiving day-care services for their children and those who did not. (See figures 4.5-4.8.) Data were missing for 1 adult who received day care and 18 adults who did not. This difference, however, was less than the difference for the secondary students. In the comparison group, no adults completed the GED, while 6 percent of the day-care recipients completed the GED. Twenty-seven percent of all adult day-care recipients and 12 percent of all adults in the comparison group completed courses. Based on these data, it would appear that day care services were related to GED or course completion rates for adults. Of the adult day-care recipients, 67 percent had another reason for leaving other than completion. In the

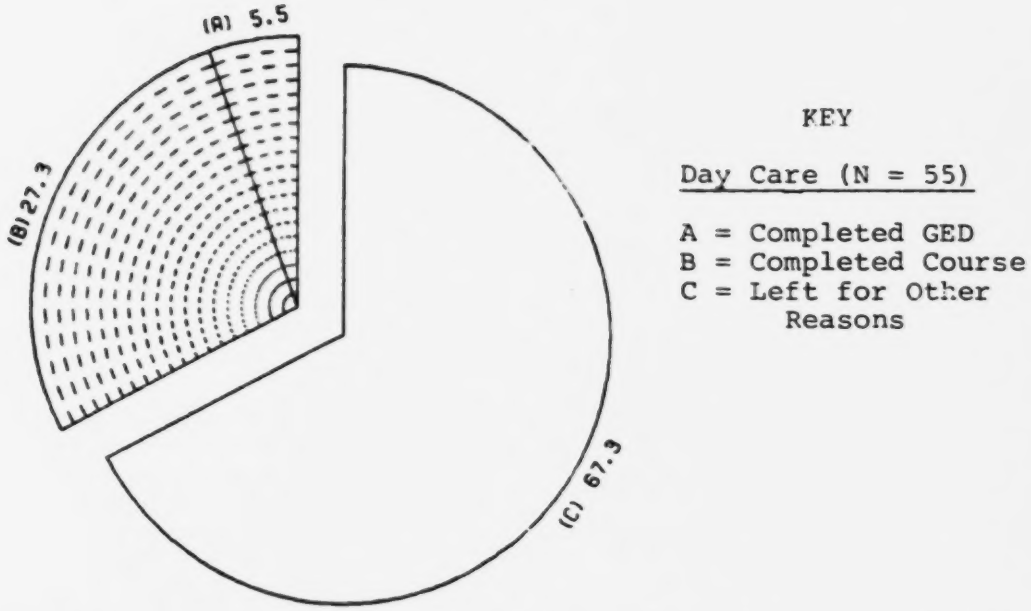
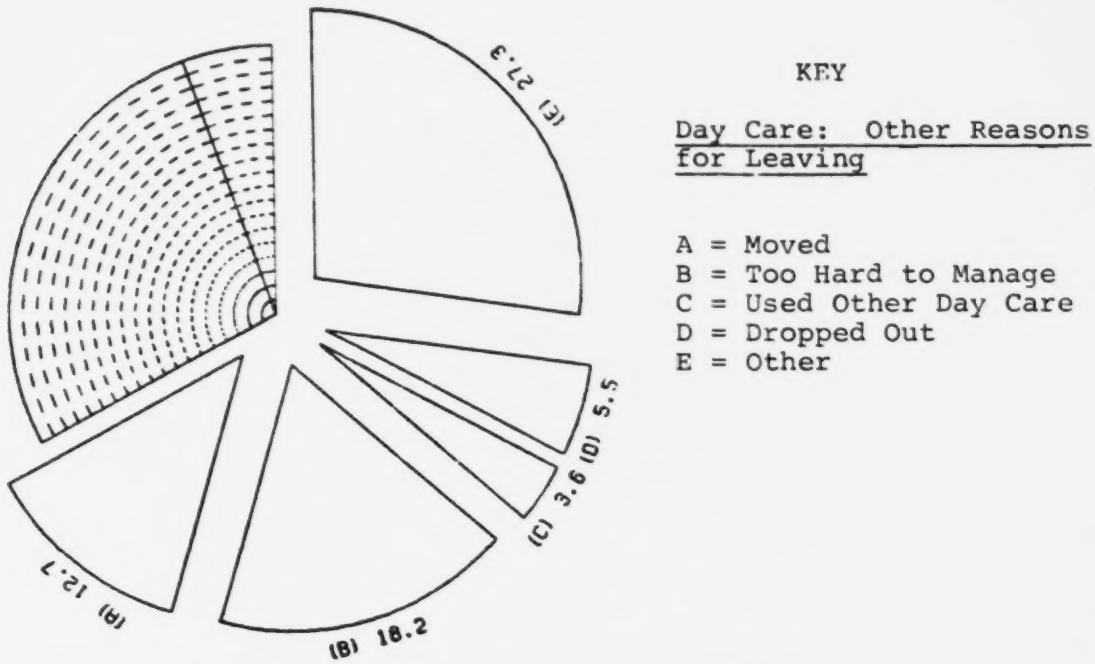
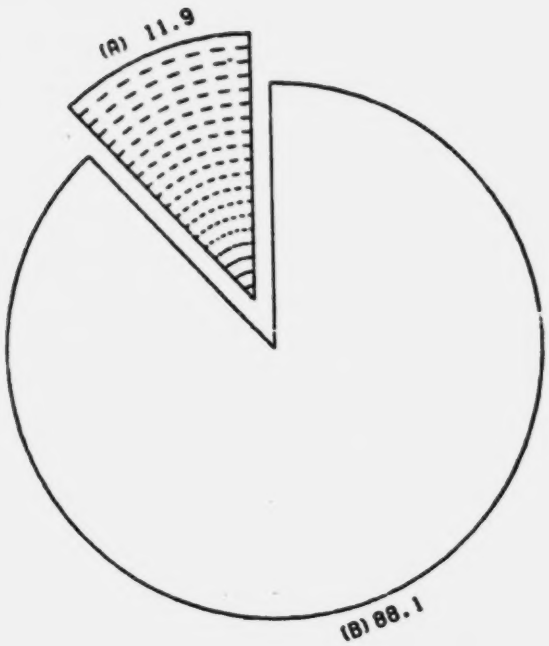


Figure 4.5 Percentages of GED completion and course completion for adult day-care recipients across all sites.



NOTE: Chi-square = 6.37 with 2 degrees of freedom for figures 4.5 and 4.7.

Figure 4.6 Percentages of other reasons for leaving for adult day-care recipients.

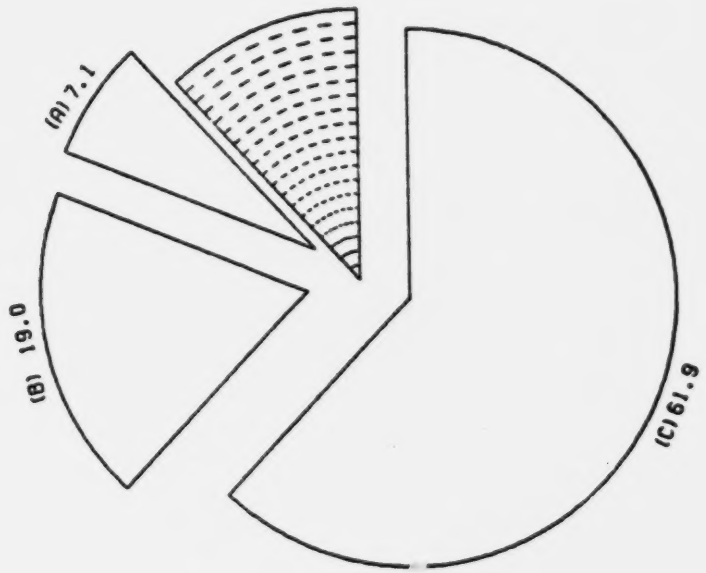


KEY

No Day Care (N = 42)

A = Completed Course
B = Left for Other Reasons

Figure 4.7. Percentages of course completion for adult students not receiving day care.



KEY

No Day Care: Other Reasons for Leaving

A = Too Hard to Manage
B = Dropped Out
C = Other

Figure 4.8. Percentages of other reasons for leaving for adult students not receiving day care.

comparison group, 88 percent of the adults had other reasons for leaving.

Similarly to secondary students, the dropout rates were higher for adults with no day care (19 percent) than for those with day care (6 percent). Again, there would appear to be a relationship between day care and reducing dropout rates for adults. Other important reasons for leaving for both groups of adults included moving and that the situation was too hard to manage. Interestingly, while only 7 percent of adults not in day care found it too hard to manage, 18 percent of adults in day care made a similar statement. Possibly other aspects of these adults' family or work lives made managing schooling and day care for their children more difficult. In addition, 13 percent of adults receiving day care for their children moved. Mobility, thus, appeared to have reduced their chances of completing courses or obtaining a GED.

Most adults who received day-care services and completed either courses or obtained a GED lived alone or with one parent and had either no alternative day care or used family as alternative day care. All adults in the comparison group who completed courses lived with one parent and used family as alternative day care. The distance to school was not related to course or GED completion rates for either group. Both groups appeared to primarily use the city bus as a means of transportation to school. However, the means of transportation for both groups was not related to an increase in course or GED completion. Only those adults receiving day care who had family members drive them to school were slightly more likely to complete courses or the GED than non-day-care recipients.

Throughout this discussion, other reasons for leaving school have been identified only generally for secondary students and adults across all day-care sites. To provide more understanding, these reasons are listed here:

- Was suspended from school
- Had a child who was overage
- Did not follow day-care guidelines
- Became pregnant
- Had court problems
- Had a sick child
- Was not motivated
- Went into another program
- Had personal or family problems
- Did not follow through with day-care application and did not attend

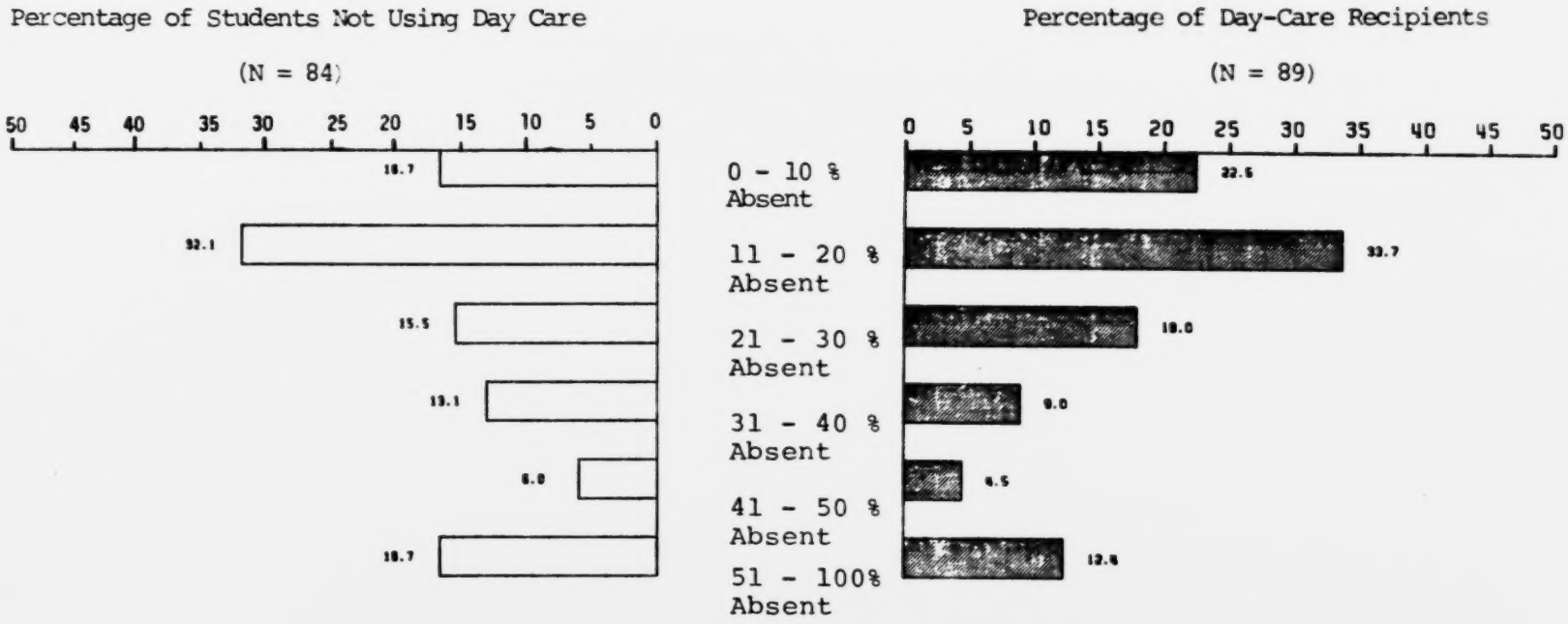
Research Question 3:

What were the differences in school attendance rates between secondary students who had day-care services for their children and those who did not?

There were few differences in school attendance rates between secondary students who had day care for their children and those who did not. Figure 4.9 shows the percentage of days absent for the school year to be similar for day-care recipients and the comparison group. Students who were absent between 11 and 20 percent of the school days had the largest percentage in both groups with nearly 34 percent of students in day-care programs and 32 percent of students without day care. Over 56 percent of students in the day-care program and nearly 50 percent of students without day care were absent 20 percent or less of the school days.

Secondary students in the day-care program who lived with both parents or a spouse had somewhat less incidence of absence for the school year than all other students in the day-care program with other living arrangements. Of the day-care students who lived with one parent and also used their parent as a main source of alternative day care, 8 percent were absent 51 percent or more of school days. For the secondary students receiving no day care, living situations and alternative day care were almost evenly split between the categories of one parent and both parents. As with day-care recipients, students who lived with both parents were absent less frequently than students who lived with one parent.

The distance from school did not appear to influence attendance rates. Nor did the mode of transportation. The city or school bus was the most common mode of transportation for both groups.



NOTE: Chi-square = 2.33 with 5 degrees of freedom.

Figure 4.9 School attendance rates for secondary students across all sites

Research Question 4:

What were the differences in school attendance rates between adults who had day-care services for their children and thoses who did not?

As with secondary students, there was no difference in school attendance rates between adults who had day-care services for their children and adults who did not (figure 4.10 displays the attendance rates for adults). Attendance rates were missing for 16 adults. Adults in both groups (36-38 percent) were likely to be absent between 51 and 100 percent of the school days. Thus, high dropout rates were typical for adults regardless of the prevalence of day care. Figure 4.10 displays the attendance rates for adults.

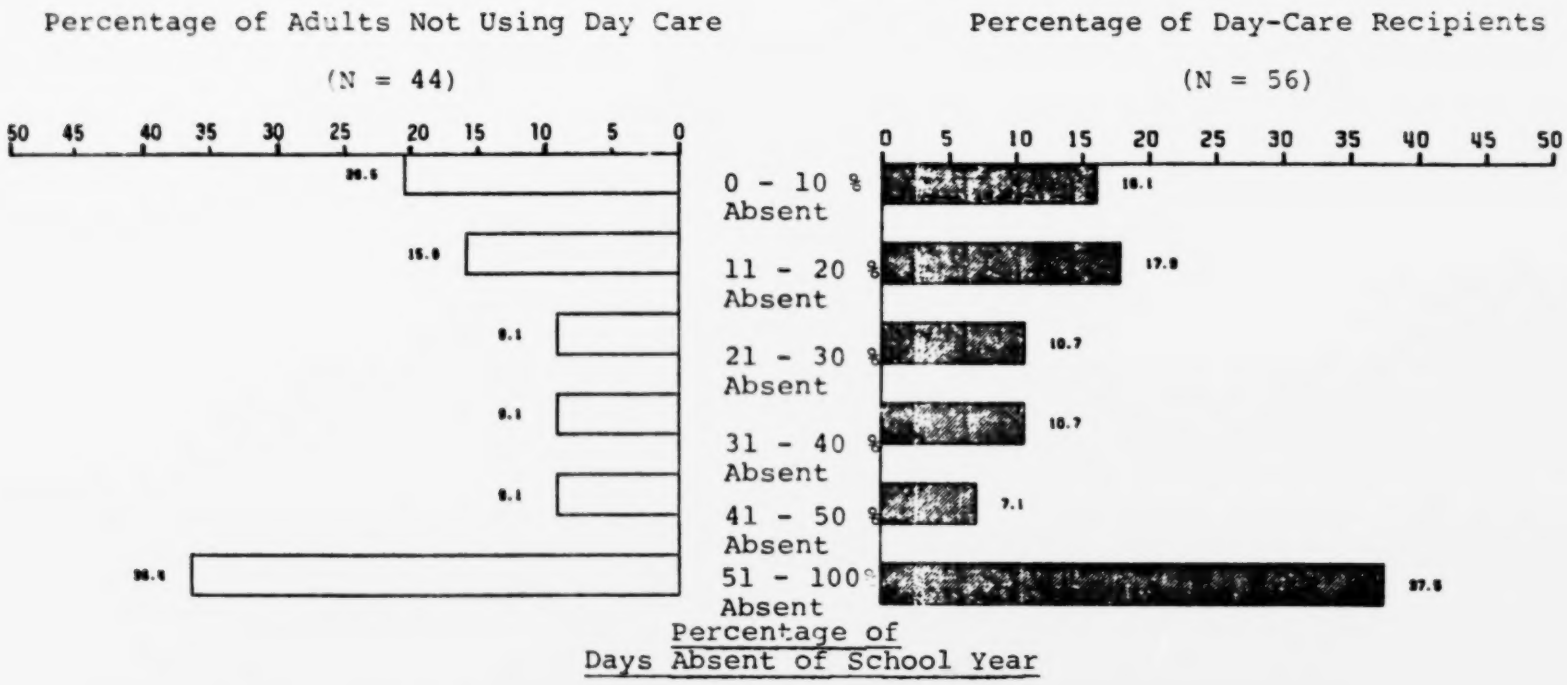
There did not appear to be any relationship between living arrangements, alternative day care, distance from school, mode of transportation, and attendance for adults in general.

Research Question 5:

What were the differences in grades between secondary students who had day-care services for their children and secondary students who did not?

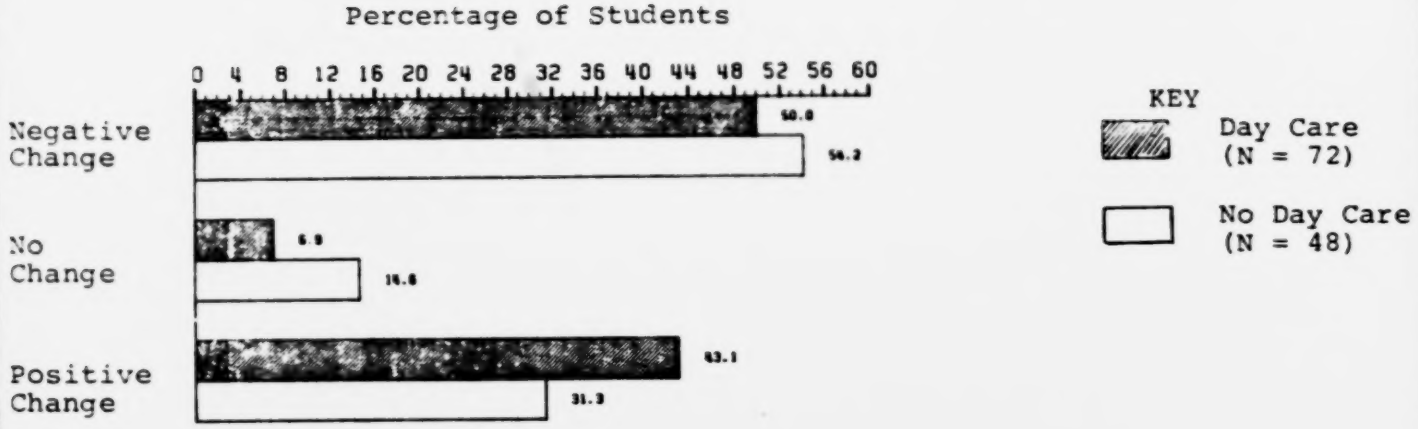
The difference in grades of secondary students who had day-care services for their children and those who did not was, in general, minimal. It should be noted that GPAs were missing for 53 secondary students. However, the change in grades was slightly more positive for those students receiving day care than for those not receiving day care. Also, a larger percentage of day-care students (43 percent) showed positive change in their GPAs as opposed to the comparison group (31 percent). These findings are shown in figure 4.11.

Figure 4.12 indicates the change in percentages of all secondary students from prior to post GPAs. The percentage of students indicated in the bar graph reports the difference in percentage of student population for prior- and post-grades. Figure 4.12 reveals that secondary day-care recipients that had GPAs between low and 1.9 and between 3 and 4 had positive changes in their GPAs. The difference between day care recipients and the comparison group was largest in the GPA categories of 1-1.9, 2-2.9 and 3-4. For secondary day care recipients with a GPA of 2-2.9, the GPAs fell by almost 13 percent. The GPAs of the comparison group rose almost six percent. The reasons for these changes could not be explained with these data.



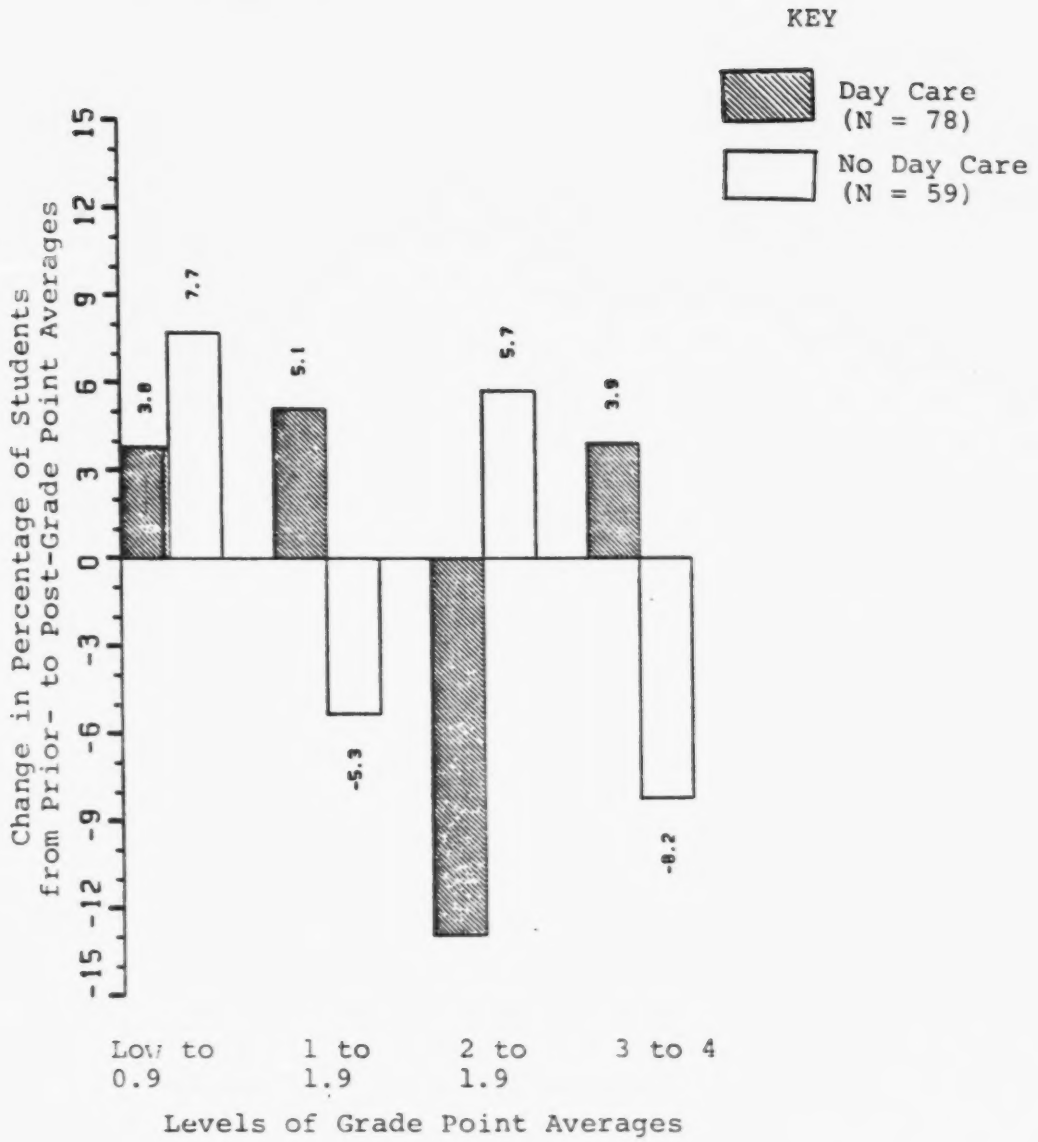
NOTE: Chi-square = 0.57 with 5 degrees freedom.

Figure 4.10. School attendance rates for adults across all sites


Percentage of Students
0 4 8 12 16 20 24 28 32 36 40 44 48 52 56 60
Negative Change
No Change
Positive Change
KEY
Day Care (N = 72)
No Day Care (N = 48)

NOTE: Chi-square = 2.82 with 2 degrees of freedom.

Figure 4.11. Direction of change in grade point averages for secondary students across all sites.



NOTE: Chi-square = 13.56 with 3 degrees of freedom for the day-care recipients.

Chi-square = 10.82 with 3 degrees of freedom for students not receiving day care.

Figure 4.12. Change in percentage of secondary students in various grade point average levels across all sites.

A more in-depth analysis indicated that students in the comparison group living with both parents were more likely to show negative changes in their GPAs than day-care recipients. About 56 percent of day-care recipients who lived with both parents had positive changes in GPAs, compared to 40 percent for the non-day-care recipients living with both parents. More than double the proportion of day-care recipients (43 percent) as students in the comparison group (19 percent) who lived with one parent showed positive changes in their GPAs.

There was an observable difference between secondary day-care recipients and the comparison group living within 2 miles of the school. A higher percentage of secondary non-day-care recipients showed no changes in their GPAs. Secondary day-care recipients who lived within 2 miles were almost twice as likely as non-day-care recipients to have positive changes in GPAs. Day-care recipients were the only students who had family drive them to school, and this appeared to be a positive influence on their GPAs. Secondary day-care recipients who took the city or school bus showed slightly negative changes in their GPAs. This was true with the students in the comparison group as well.

Research Question 6:

What were the differences in grades between adults who had day-care services for their children and adults who did not?

GPA scores were not available for adults. As a result, research question six could not be answered.

Research Question 7:

What were the differences for secondary and adult students using the various types of day-care services (contracted, in-school, existing) in the rates of course completion, graduation, or GED completion; attendance rates, and grades?

The answer to this question was provided by all of the students who received day care, that is, the population of secondary and adult students prior to equalizing the groups. These students had similar characteristics to the equalized group of day-care recipients used to answer questions one - five. Since this question was directed to students using different types of day-care services, only data for day-care recipients was used.

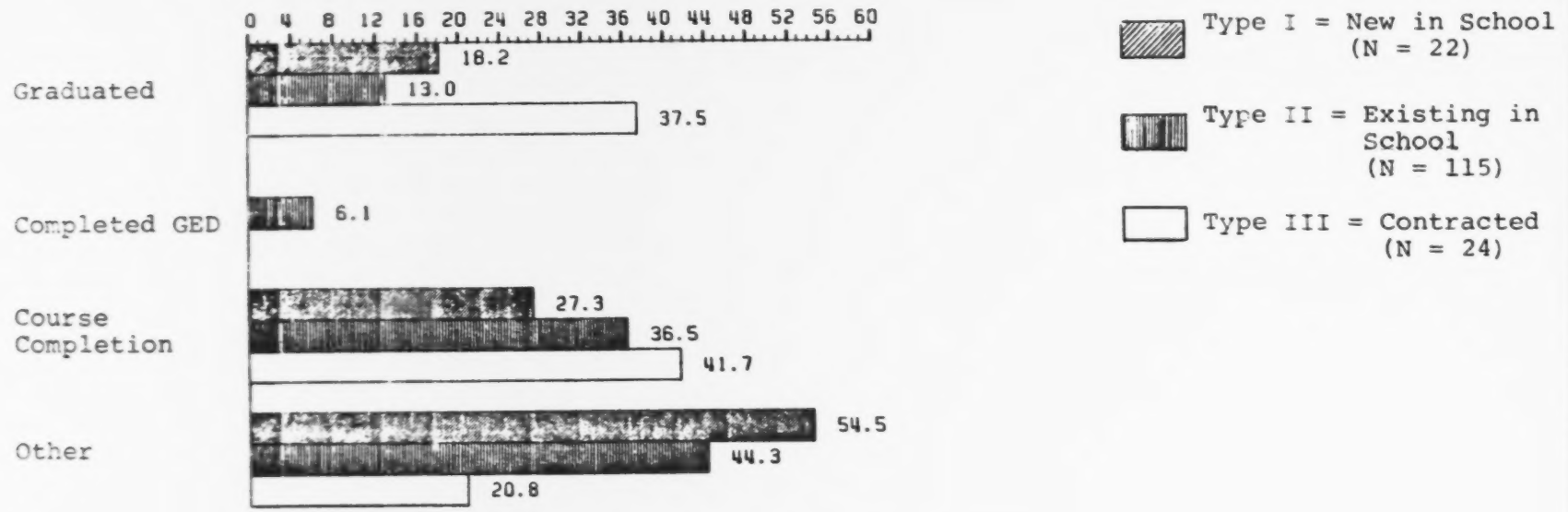
Figure 4.13 indicates that more students (79 percent) using contracted day-care services graduated and completed their courses than existing (56 percent) or new in-school day care (46 percent). Slightly more students (18 percent) who graduated used new day-care services in school than existing services (13 percent). However, 6 percent of students in existing day care completed GEDs. The reverse was true for course completion; more students using existing day-care services completed courses than students in new day-care services.

In interpreting the results, it is important to consider the percentage of students who were in grade 12. Twelfth graders comprised 30 percent of students in new day-care programs, 16 percent of students in existing day-care programs and 23 percent of those using contracted day-care services. A possible reason why fewer students in existing day-care programs in school graduated is that there was a smaller percentage of 12th graders using this type of day care to start with. However, given the fact that there were fewer 12th-grade students in contracted day care, graduation rates for these students were quite impressive.

Figure 4.14 displays the differences in attendance rates for students using various types of day care services. Type I or new day care services had the most positive influence on absenteeism as indicated by the high proportion of students absent only 20 percent or less of the school days. However, at the same time, there were also fairly high rates of absenteeism for this same group. However, this could be due to combining data for secondary students and adults since adults were more likely to be absent 51 percent and more of all school days than secondary students.

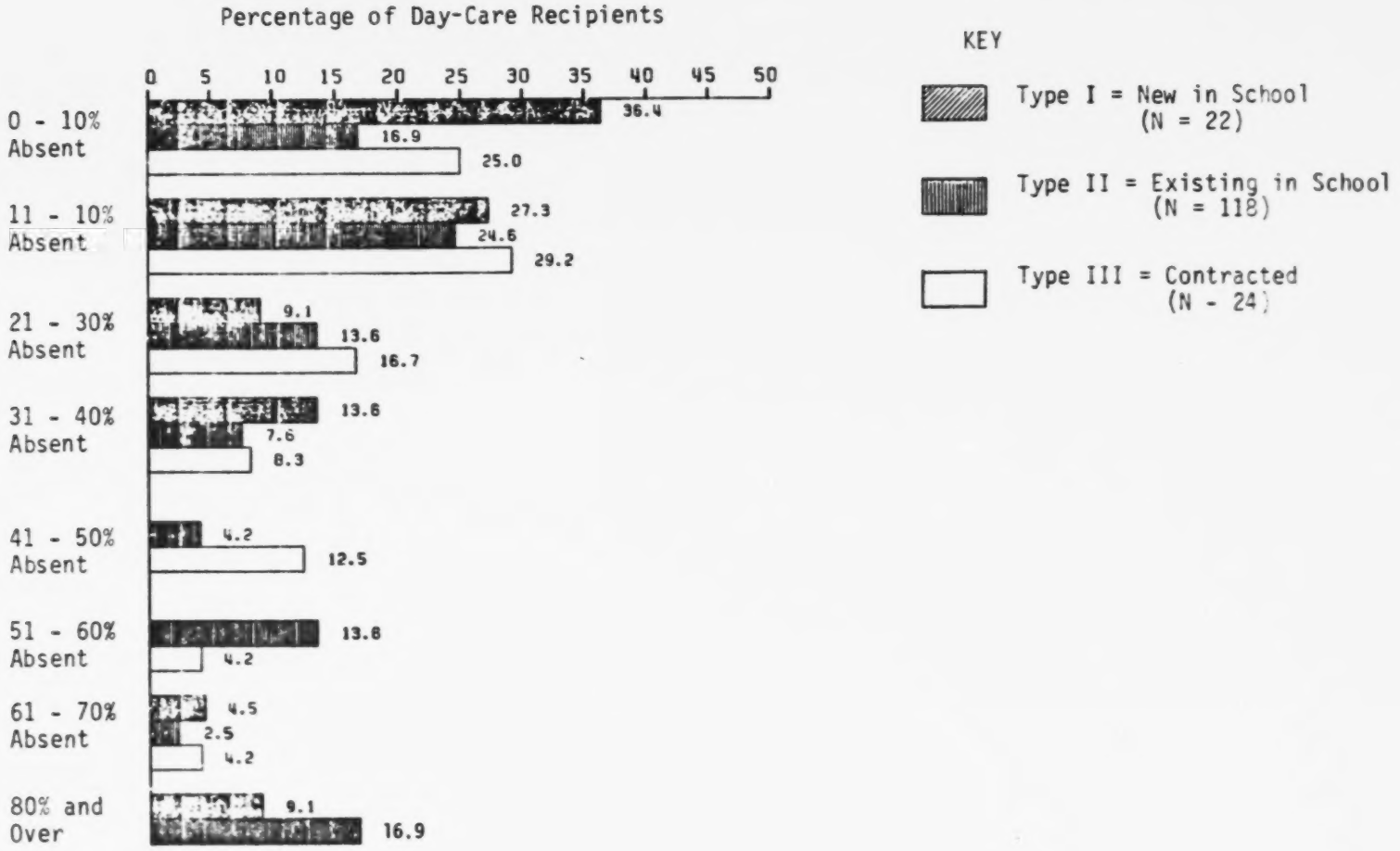
It would appear from the findings that existing day-care services were, in general, less effective in reducing student absenteeism compared to new contracted day-care services. Again, however, the fact that there were many more students in existing day care than new or contracted day care should be noted.

Generally, both type I and type III day-care services showed a more positive influence on attendance rates than type II. Even though existing day-care services influenced attendance rates less positively than new or contracted day-care services, this type of day care influenced GPAs more positively than other types of day care. About the same proportion of students in new and contracted day care had a positive or negative change in GPAs (See figure 4.15).



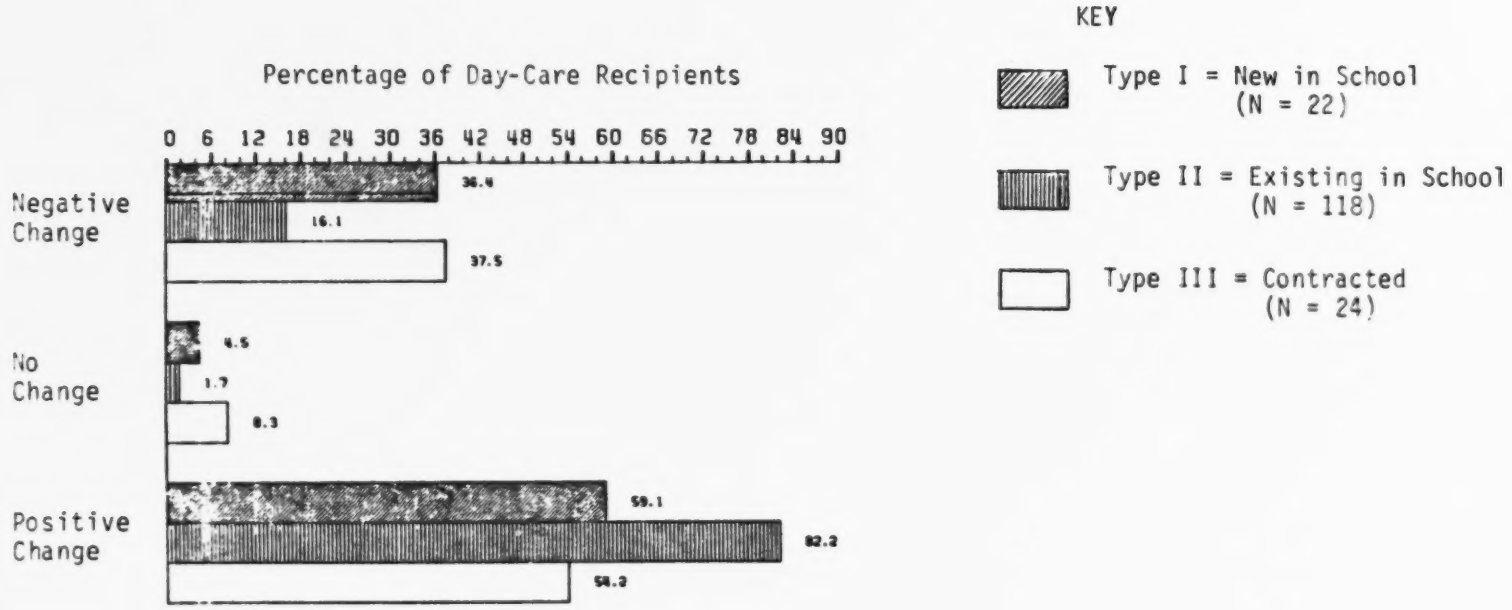
NOTE: Chi-square = 13.84 with 6 degrees of freedom.

Figure 4.13. Relationship of graduation, course and GED completion to type of day care for all day-care recipients across all sites.



NOTE: Chi-square = 18.44 with 14 degrees of freedom.

Figure 4. 14. Relationship of percentage of days absent to type of day care for all day-care recipients across all sites.



NOTE: Chi-square = 12.58 with 4 degrees of freedom.

Figure 4.15. Relationship of grade point average (GPA) to type of day care for all day-care recipients across all sites.

Research Question 8:

What were the relationships of secondary and adult students' gender, age, grade, race, number of children, availability of other day-care services, and vocational program to course completion, graduation, or GED completion rates, attendance rates, and grades?

The findings were examined to determine whether there were relationships between various characteristics of students and completion, attendance and grades. As in the previous question, only students who received day-care services were included in these analyses. The gender and race of secondary and adult students were not analyzed since the overwhelming majority of students were female and black.

Course Completion, Graduation, or GED Completion

The ages of secondary students and adults were correlated with various types of completion. The findings reported in table 4.1 indicate little relationship between the age of students and type of completion. The Cramer's V was 0.18 for the relationship between age and completion for secondary students and only slightly higher for adults as indicated by a Cramer's V of 0.27.

TABLE 4.1

CRAMER'S V FOR FACTORS RELATED TO
COURSE COMPLETION, GRADUATION OR GED COMPLETION
FOR SECONDARY AND ADULT STUDENTS

	Course Completion, Graduation, or GED Completion	
Factors	Secondary Students (Cramer's V)	Adult Students (Cramer's V)
Age	.18	.27
Grade in school	.62	.23
Number of children	.10	.21
Educational program	.26	.19
Alternative day care	.25	.15

Whereas 83 percent of secondary students who completed courses were 16 to 18 years old, about 71 percent of students who had some other reason for leaving than completion were in that age bracket.

Secondary students who had some other reason for leaving than completion were either under 16 or over 18. These findings indicate a low relationship between age and type of completion for secondary students, as a higher proportion of students who had some other reason for leaving than completion were 13-15 or 19-21 than 16-18.

A similar but stronger relationship was apparent for adults. Over 40 percent of adults who had some other reason for leaving than completion were ages 16-18. The majority of adults who completed courses were 19 to 21 years old. Only 20 percent of adults who completed courses were 16-18. These findings indicate that younger adults between 16 and 18 are less likely to complete courses and more likely to have some other reason for leaving than adults of other ages. Table D.5 in appendix D provides more information about these relationships.

Secondary students and adults differed substantially in relationships between grade in school and type of completion. A Cramer's V of 0.62 revealed a strong relationship between grade and completion for secondary students, as shown in table 4.1. The table reveals that most of the secondary students who had some other reason for leaving than completion were in grades 9 and 10. The majority of students who completed courses were in grade 11 and, of course, all those who graduated were in grade 12. Whereas 81 percent of 12th-grade students and 81 percent of 11th-grade students graduated or completed their courses, only 48 percent of 9th- or 10th-grade students completed their courses. Based on these findings, whether secondary students would complete their courses or graduate could be predicted fairly accurately by knowing their grade in high school. In contrast, knowing the grade of adults yielded little information about completion, partly because most of the adults had not indicated what grade they had previously completed in high school. As a result, a low relationship existed between adult students' grade in school and completion as indicated by a Cramer's V of 0.23 (see table D.7 in appendix D for more information about these relationships).

The findings presented in table 4.1 reveal little relationship between number of children and completion. For secondary students a Cramer's V of 0.10 is indicated and for adults a Cramer's V of 0.21. Because, only three adults obtained GEDs, it was not appropriate to discuss those data. However, the remaining findings for adult students revealed that having one child was only slightly related to completing courses, and adults who had some other reason for leaving than completion were more likely to have had two or more children. There was a slight indication that having more children may have contributed to adults' not completing their courses. Table D.7 in appendix D provides more information about these relationships.

The type of vocational program that students and adults were studying had a weak relationship to type of completion. Table 4.1 reveals a Cramer's V of 0.26 for secondary students. Whereas some

secondary students in all program areas either graduated or completed courses, secondary students in other programs were twice as likely to graduate as complete courses. Generally, more students in the remaining programs completed courses than graduated, but the relationship was quite low.

Even though no one program was superior in terms of having students complete their courses or obtain GEDs, there seemed to be a tendency for adults to leave in different ways when enrolled in different programs. Adults enrolled in GOALS were more likely to complete courses than were adults in other programs. All of the adults who obtained GEDs were enrolled in the ABE-GED program. None of the adults in occupational home economics completed GEDs, courses or graduated. The correlation between adults' reasons for leaving and their educational program was 0.27, indicating a low relationship. See table D.8 in appendix D for more detail.

Finally, an examination of alternative day care in relationship to type of completion was conducted. Table 4.1 revealed low relationships between day care and completion for both secondary students and adults. The Cramer's V of 0.25 indicated a weak relationship for secondary students. The data indicated that if a spouse or some combination of more than one type of day care were available for children of secondary students, those students were more likely to complete courses or graduate. Students who had only friends to provide day care were more likely to have some other reason for leaving than completion or graduation. Most students with family, other, or no day care available graduated or completed courses. Fewer of these students left for some reason other than completion.

As for adults, having family available to provide day care appeared to increase slightly the possibility of obtaining a GED. However, none of the remaining alternate types of day care appeared to be related to reasons for leaving school as indicated by the low Cramer's V of 0.15. See table D.9 in appendix D for more information about these relationships.

Attendance Rates

The relationships between attendance rates and age, grade in school, and number of children were examined for secondary and adult students. Findings presented in table 4.2 indicate that the relationship between secondary students' attendance and grade in school was low, and the Pearson Product-Moment Correlation of -0.26 indicated a negative relationship. Students in lower grades in high school were more likely to be absent more days during the school year than students in higher grades. There were not

TABLE 4.2

PEARSON CORRELATION BETWEEN ATTENDANCE RATES AND AGE, GRADE IN SCHOOL, AND NUMBER OF CHILDREN FOR SECONDARY AND ADULT STUDENTS

Factors	Attendance Rates	
	Secondary students	Adult students
Age	r = .14 p = .09 (n=89)	r = -.31 p = .01 (n=56)
Grade in school	r = -.26 p = .008 (n=85)	r = -.76 p = < .001 (n=53)
Number of children	r = .03 p = .41 (n=89)	r = -.37 p = .003 (n=56)

significant relationships between attendance rate and age or number of children for secondary students.

The attendance rates for adults were related to their age, grade in school, and number of children, with the Pearson Product-Moment Correlations indicating negative relationships between these variables. Adults who were younger, in lower grades in school, and who had fewer children were more likely to be absent more days during the school year than the other adults.

Next, the relationship between educational programs and attendance rates of secondary students and adults were examined. Table 4.3 reveals that the relationship differed for secondary students and adults. A moderate relationship was found for adults, as revealed by a Cramer's V of 0.43; for secondary students the relationship was weak, as revealed by a Cramer's V of 0.27. More than half of the secondary students in business, occupational home economics, GRADS, health occupations, and other programs were absent between 0 and 20 percent of the school days. A slightly greater proportion of students in consumer homemaking

and trade and industry were absent 21 percent or more of the school days. However, attendance did not vary greatly for secondary students given their educational program.

In contrast, there was a tendency for adults enrolled in occupational home economics (there were only three) to attend school more regularly. They were absent only 0-20 percent of the school days. Although attendance rates were fairly evenly distributed for adults in ABE-GED, adults in GOALS exhibited the highest degree of absenteeism. Over 54 percent of adults in GOALS missed more than one-half of the school days. More detailed information is provided in table D.10 of appendix D.

TABLE 4.3

CRAMER'S V FOR FACTORS RELATED TO ATTENDANCE RATES FOR SECONDARY AND ADULT STUDENTS

Factors	Attendance Rates	
	Secondary Students (Cramer's V)	Adult Students (Cramer's V)
Educational program	.27	.43
Alternative day care	.27	.28

The day-care alternatives available to secondary students and adults influenced attendance rates only slightly. Table 4.3 indicates that the Cramer's V for secondary students was 0.27 and for adults 0.28. Table D.11 in appendix D provides more background information. Basically, these data revealed that having family, friend(s), spouse, or alternative day-care alternative was weakly related to higher attendance rates for secondary students. Students who had no alternative day care were slightly more likely to be absent more frequently.

As with secondary students, adults who had family as alternative day care were slightly more likely to attend school more frequently. In contrast to the findings for secondary students, having a combination of day-care alternatives seemed to be associated with somewhat more regular attendance for adults. However, a very high proportion of adults were absent a large number of school days regardless of their day-care alternatives.

Grade Point Average

Change in GPAs, identified as positive, negative, or no change, was correlated with a number of factors. Generally, none of the factors correlated very highly with change in GPAs as revealed by table 4.4. These findings were interpreted cautiously because of the fact that nearly 20 percent of the GPAs were missing. Also, these findings apply only to secondary students.

TABLE 4.4

CRAMER'S V FOR FACTORS RELATED TO CHANGE IN GRADE POINT AVERAGE FOR SECONDARY STUDENTS

Factors	Changes in GPAs
Age	.18
Grade in School	.25
Number of Children	.22
Educational Program	.30
Alternative Day Care	.28

About equal proportions of secondary students between the ages of 16 and 21 had negative, positive, and no change in GPA while participating in day care. The group that had more students experiencing improved GPAs was the 13-15 age group. Even though data were available for only six 13-15 year olds, twice the number of those secondary students had a positive change than a negative change. As a result, the Cramer's V showed a weak relationship of 0.18. Table D.12 in appendix D provides more information about these relationships.

In a closely related area, grade in school, data presented in table D.13 in appendix D, showed similar results. The proportion of secondary students in grades 9 and 10 and grades 11 and 12 who had a positive change was nearly equal to the proportion of students with a negative change. The correlation was 0.25 revealing only a small amount of association between grade in school and change in GPAs.

Table D.14 in appendix D indicates the Cramer's V for the relationship between number of children and change in GPA. There appears to be a small degree of association between the variables, as indicated by a slightly higher proportion of secondary students with two to four children having a negative change in GPA. However, to reiterate, the difference between students with only one child compared to more than one child was small.

The Cramer's V indicating the strength of the relationship between change in GPAs and the educational program of secondary students was 0.30. This indicates the two variables were moderately associated. Secondary students in nearly all of the educational programs were slightly more likely to have their GPAs improve, but secondary students in business were much more likely to have their GPAs drop. Table D.15 in appendix D provides details of this relationship.

Finally, changes in GPAs was only weakly related to the day-care alternatives used by secondary students. The Cramer's V of 0.28 was reported in table D.16 in appendix D. About the same proportion of students who had family, none, or other day care experienced positive changes in GPAs as negative changes. When students had a combination of day-care alternatives, they were more likely to have positive changes in GPAs. In contrast, when the alternative day care was a spouse or friend, students had negative changes in GPAs. Again, these findings must be interpreted cautiously, as few students used some of the various day-care alternatives such as spouse, friend, or other.

Relationship between Type of Completion and Attendance Rates

As was expected, there was a moderate relationship between type of completion and attendance for adults and secondary students. Adults who received GEDs or completed their courses were more likely to attend school more regularly than adults who had some other reason for leaving school. The Cramer's V was 0.41. All three adults who received GEDs were absent from school between 0 and 20 percent of the school days, compared to 47 percent of adults who completed courses and only 24 percent of adults who had some other reason for leaving. The relationship between attendance and completion was similar for secondary students, as revealed by a Cramer's V of 0.32. Three-quarters of the secondary students who graduated were absent between 0 and 20 percent of the school days, compared to 53 percent of students who completed courses and 42 percent of students who had some other reason for leaving. Table D.17 in appendix D provides more details about these relationships.

Finally, since changes in GPAs were available for secondary students, their relationships to attendance and type of completion were examined. The findings indicated that the way students completed and attended school was not related to whether students' GPAs improved or dropped.

CHAPTER V

FINDINGS FOR INDIVIDUAL SITES

Descriptive data for the sites are summarized here by comparing secondary students to adults and by comparing secondary and adult students who had children in day care to those who did not. Frequency counts and percentages are used to describe findings for each site. The chi square and the number of missing observations are also reported.

Akron

Descriptive Data

All of the students at the Akron site were female and over 85 percent of them were single. Black students represented 81 percent of the secondary students and 80 percent of the adults, whereas 16 percent of the secondary students and 21 percent of the adults were white. The secondary and adult students who did not receive day-care services had similar characteristics.

Secondary students in Akron were in grades 7-12. Of the day-care recipients, none were in grades 7 or 8, 7 (18 percent) were in grades 9 or 10, 16 (40 percent) were in grade 11, and 17 (43 percent) were in grade 12. By comparison, about 40 percent of secondary students who did not receive day care were in grades 7-10 another 40 percent were in grade 11 and, finally, only about 20 percent were in grade 12. Thus, about twice the proportion of secondary students (43 percent) who received day-care were eligible to graduate compared to secondary students (20 percent) who did not receive day care. There were 22 adults receiving day-care services compared to 24 adults who did not. These adults were not enrolled in school by grade.

There were two distinct differences in the ages recorded for secondary and adult students in Akron. First, the ages of secondary students ranged from 13 to 21, whereas for adults the range was from 16 to 29. Second, the most prominent age group for secondary students was 16 to 18 years old (80 percent). For adults, the percentage of adults 16-18, 19-21, 22-24 and 25-29 was fairly evenly distributed, ranging from 23 percent to 27 percent. The ages of secondary and adult students who did not receive day-care services were extremely similar to the distribution described for day-care recipients.

The secondary and adult students receiving day care and the comparison groups varied as to their living arrangements. The majority of both groups of secondary students either lived with one parent or both parents, whereas the majority of both groups of adults either lived alone or with one parent. The data showed that a majority of secondary students receiving day care (88 percent) and students without day care had one child. Furthermore, adults receiving day care and adults without day care were almost evenly divided. Forty-six percent of adults in Akron had one child and 54 percent of adults had 2-4 children.

As with descriptive information across all sites, most of the secondary and adult students in Akron lived within 2 miles of the school (47 percent of the secondary students and 69 percent of adult students). The majority of secondary students and adults (51 percent of all secondary students and 57 percent of all the adults) took the city bus to school. However, although 80 percent of the adults who did not receive day-care services rode the bus, only 30 percent of adults in the day-care program took the city bus. Adults in day-care were more likely than the other adults to have family or friends drive them to school. The city bus was also used by many of the secondary and adult students in day care to travel to the day-care centers. However, secondary students were about equally as likely to have family members drive them to day care as ride the bus. Many secondary students used family (35 percent) for alternative day care. However, more adults used the family (43 percent), whereas, in contrast, 35 percent had no alternative day care. Of note was that about 80 percent of secondary students who did not receive day care had no other day care available.

The data indicated that most secondary students in Akron day-care programs were enrolled in consumer and homemaking education, occupational home economics, business, or other programs, whereas secondary students who were not in the day-care programs were usually in consumer and homemaking education, occupational home economics or GRADS. The majority of adults receiving day-care services were in GOALS, whereas the majority of adults not receiving services were in ABE-GED.

Teachers (27 percent), friends (30 percent), and family (20 percent) were the sources from which the secondary students found out about the day-care program and teachers (20 percent) and friends (20 percent) were typical sources for all adult students. Of note was that 45 percent of the secondary students who were not receiving day-care services learned about the day-care program from a teacher.

Course Completion, Graduation, or GED Completion Rates

Secondary students. Overall results for secondary students indicated the positive influence of day care on course completion

TABLE 5.1

COURSE COMPLETION, GRADUATION, AND GED COMPLETION RATES OF AKRON SECONDARY STUDENTS AND ADULTS

Type of Completion	Secondary Students[a]		Adult Students[b]	
	Day Care	No Day Care	Day Care	No Day Care
Graduation or Completed GED	12 (30.0)	1 (33.3)	3 (13.6)	0 (0.0)
Course completion	18 (45.0)	0 (0.0)	3 (13.6)	0 (0.0)
Other	10 (25.0)	2 (66.7)	16 (72.7)	22 (100.0)
Total	40 (100.0)	3 (100.0)	22 (100.0)	22 (100.0)

[a]Chi-square = 3.11 with 2 degrees of freedom.
Cramer's V = 0.27.
Number of missing observations = 34.
[b]Chi-square = 8.95 with 2 degrees of freedom.
Cramer's V = 0.40.
Number of missing observations = 2.

TABLE 5.2

CHANGE IN GRADE POINT AVERAGES OF AKRON SECONDARY STUDENTS

Change in Grade Point Average	Day Care	No Day Care
Negative Change	19 (52.8)	7 (41.2)
No Change	1 (2.8)	3 (17.6)
Positive Change	16 (44.4)	7 (13.2)
Total	36 (100.0)	17 (100.0)

NOTE: Chi-square = 3.72 with 2 degrees of freedom.
Cramer's V = 0.27.
Number of missing observations = 24.

TABLE 5.3

CHANGE IN ATTENDANCE RATES OF AKRON SECONDARY STUDENTS AND ADULTS

Percentage of Days Absent	Secondary Students[a]		Adult Students[b]	
	Day Care	No Day Care	Day Care	No Day Care
0 - 10	8 (20.0)	9 (24.3)	3 (13.6)	2 (25.0)
11 - 20	18 (45.0)	12 (32.4)	3 (13.6)	0 (0.0)
21 - 30	9 (22.5)	7 (18.9)	5 (22.7)	0 (0.0)
31 - 40	4 (10.0)	4 (10.8)	4 (18.2)	2 (25.0)
41 - 50	1 (2.5)	3 (8.1)	3 (13.6)	3 (37.5)
51 - 100	0 (0.0)	2 (5.4)	4 (18.2)	1 (12.5)
Total	40 (100.0)	37 (100.0)	22 (100.0)	8 (100.0)

[a]Chi-square = 4.40 with 5 degrees of freedom.
Cramer's V = 0.24.
[b]Chi-square = 5.28 with 5 degrees of freedom.
Cramer's V = 0.42.
Number of missing observations = 16.

and graduation as shown in table 5.1. Of all secondary students receiving day care, 30 percent graduated, 45 percent completed their courses, and 25 percent completed in another manner. The comparison group's results were not as positive. However, with only three secondary students in the comparison group, the results were difficult to interpret. For the three secondary students in the comparison group, results were evenly spread over three categories: 33.3 percent graduated, 33.3 percent went to regular high school, and 33.3 percent completed in another way. Data would tentatively indicate a positive relationship between receiving day care and staying in school until course completion or graduation for secondary students in Akron.

Adults. Adult students' overall results were somewhat different from the results for secondary students. Only 27 percent of all adult students receiving day care either graduated (13.6 percent) or completed courses (13.6 percent). The other 73 percent of adults receiving day care indicated the following reasons for leaving school: 27 percent moved, 27 percent left because school was too hard to manage, 5 percent used other day care alternative, and 14 percent other. For the adult comparison group, no one indicated that she had completed courses or graduated. Data indicated reasons for leaving for adults who received day care to be the following: 9 percent said school was too hard to manage, 9 percent dropped out, and 82 percent indicated another reason for leaving.

Grade Point Averages

Secondary students. The GPAs of secondary students are reported in table 5.2. GPAs are summarized into three categories: negative change, no change, and positive change. No GPAs were reported for adults at this site or at any other site.

The results revealed that 53 percent of secondary day-care recipients and 41 percent of the comparison group showed negative change. Fewer recipients of day care (3 percent) had no change in their GPA than students not receiving day-care services (18 percent). In the category of positive change, day-care recipients (44 percent) showed stronger results than the comparison group (13 percent). Clearly, more secondary students in day care in Akron experienced a positive change in GPA than secondary students who did not receive day-care services there. However, slightly more secondary students who received day care had a negative change as well.

Attendance Rates

Secondary students. In general, there was a high absence rate for secondary students as shown in table 5.3. The predominant category of absence for day-care recipients was the 11-20 percent range, indicating that 11-20 percent of school days were

missed. Forty-five percent of all secondary students were in this category. The 21-30 percent absent category had the next highest frequency indicating 23 percent of the day-care recipients missed 21-30 percent of school days, whereas 0-10 percent of the school days were missed by 20 percent of the secondary students. Only 13 percent of secondary students missed 31 percent or more of school days in Akron.

Results for the comparison group also showed the 11-20 percent absent range predominant (32 percent) followed by the 0-10 percent absent range (19 percent) and the 21-30 percent range (19 percent). Slightly more secondary students who were not receiving day care (24 percent) were absent 31 percent or more of the school days compared to only 13 percent of secondary students in day care.

Adults. Data indicated a more even spread of absenteeism over all attendance categories for adult students as shown in table 5.3. For day-care recipients, most adults were absent 21-30 percent of the school days (23 percent). The 0-10 and 11-20 percent of days absent categories each had 4 percent of all students represented. Of all adults in day care, 50 percent were absent 31 percent of school days or more.

Only 8 adults were in the comparison group to compare to the 22 adults who had day-care services. Of these adult respondents, 75 percent were absent 31-100 percent of the school year. Only 25 percent of the adults were absent 0-10 percent of the school year.

Cincinnati

The data presented for Cincinnati were for secondary and adult students combined. Whereas all of the individuals in the comparison group who were not receiving day care were secondary students, 4 of the 19 students (21 percent) who received day care were adults. The 19 secondary and adult students who received day care were compared to the 19 secondary students who did not.

Descriptive Data

Students at the Cincinnati site were all female, 92 percent were black, and 95 percent were single (90 percent of the students were in day care and 100 percent of students were not in day care). The majority of students (74 percent) were 16 to 18 years old. Students who received day care were slightly older than students who did not receive day care since four of the day-care recipients were classified as adults and between 22 and 29 years old. About 45 percent of all the students were in the 9th- or 10th-grade levels. Furthermore, whereas 26 percent of students in day care were in 12th grade, only 16 percent of students not in day care were in the 12th grade. There were twice the number of

students in grade 11 who did not receive day care (32 percent) as the number who did receive day care (16 percent).

The majority of all students (79 percent) had only one child. More specifically, 63 percent of students receiving day care services had one child, and 95 percent of students in the comparison group had only one child. Most students were living with one parent (52 percent). Two other differences between the groups were that students receiving day care were more likely to be living alone (28 percent), and students not in day care were more likely to be living with both parents (24 percent). Again, this finding may be due to the presence of four adults in the group receiving day care.

The descriptive data indicated that a majority of students (68 percent) lived within 2 miles of school and took the city bus (92 percent). In this respect, the two groups were fairly similar. Almost all students in the day-care program used the city bus as a means of transportation to the day-care center. Secondary students using day-care programs were enrolled in occupational home economics (5 percent), GRADS (49 percent), business and office education (11 percent), trade and industry (17 percent), and ABE-GED (17 percent) programs. Enrollment of the group receiving day care and the group without day care in home economics programs was exactly even in numbers. Most of the remaining students who were not in the day-care program were enrolled in GRADS or some other program. Teachers (81 percent) were the main source from which the students found out about the day-care program.

Course Completion, Graduation, or GED Completion Rates

Course completion and graduation rates, as well as other reasons for leaving school, are displayed in table 5.4. The data did not indicate statistically significant relationships between having day-care services and course completion or graduation. Equal proportions of students in the two groups completed courses (26-29 percent) and graduated (16-18 percent). Of the 19 students who were day-care recipients, 5 percent found school too hard to manage, 5 percent dropped out, and 47 percent indicated other reasons for leaving.

Of the 17 students in the comparison group, 47 percent dropped out and 56 percent indicated other reasons for leaving. Even though day care was not associated with graduation or course completion, there was apparently a relationship between the day-care program and the dropout rate. Students who were not in the day-care program were over nine times more likely to dropout as students in the day-care program.

TABLE 5.4

COURSE COMPLETION AND GRADUATION RATES
OF CINCINNATI STUDENTS

Type of Completion	Day Care	No Day Care
Graduation	3	3
	(15.8)	(17.6)
Course Completion	5	5
	(26.3)	(29.4)
Other	11	9
	(57.9)	(52.9)
Total	19	17
	(100.0)	(100.0)

NOTE: Chi-square = 0.09 with 2 degrees of freedom.
Cramer's V = 0.05.
Number of missing observations = 2.

TABLE 5.5

CHANGE IN GRADE POINT AVERAGES
OF CINCINNATI STUDENTS

Change in Grade Point Average	Day Care	No Day Care
Negative Change	7	5
	(58.3)	(45.5)
No Change	0	2
	(0.0)	(18.2)
Positive Change	5	4
	(41.7)	(36.4)
Total	12	11
	(100.0)	(100.0)

NOTE: Chi-square = 2.41 with 2 degrees of freedom.
Cramer's V = 0.32.
Number of missing observations = 15.

TABLE 5.6

ATTENDANCE RATES OF
CINCINNATI STUDENTS

Percentage of Days Absent	Day Care	No Day Care
0 - 10	6	2
	(31.6)	(10.5)
11 - 20	5	5
	(26.3)	(26.3)
21 - 30	2	3
	(10.5)	(15.8)
31 - 40	3	1
	(15.8)	(5.3)
41 - 50	0	0
	(0.0)	(0.0)
51 - 100	3	8
	(15.8)	(42.1)
Total	19	19
	(100.0)	(100.0)

NOTE: Chi-square = 5.47 with 4 degrees of freedom.
Cramer's V = 0.38.

Grade Point Averages

In the comparison of post- and prior-GPAs, table 5.5 indicates similar GPAs for students who received day care compared to the students who did not. Of the 12 day-care recipient students, 7 (58 percent) showed a negative change in their GPA and 5 (42 percent) showed a positive change. None of these 12 students showed no change.

There were 11 students in the comparison group. Negative change was again the most prominent category with five (46 percent) students having their GPAs drop. There were two students (18 percent) with no change and four students (36 percent) with a positive change. Although the difference between the two groups was not great, students receiving day care were either more likely to have positive or negative change in GPAs than students who did not receive day care.

Attendance Rates

Students' attendance rates for the Cincinnati site are reported in table 5.6. As can be seen from the table, differences between the two groups of students is most evident when absenteeism was over 50 percent of the school year.

Day-care recipients showed a lesser degree of absenteeism in the higher percentage of absent categories. Data indicated that 32 percent of all day-care recipients fell into the 0-10 percent category, 26 percent into the 11-20 percent category, and 11 percent into each of the 21-30 categories. The remaining 32 percent of the students were absent 31 percent or more of the school year.

Students receiving no day care showed a higher degree of absenteeism. Of these 19 students, 47 percent were absent over 31 percent or more of the school year, 11 percent were absent between 0-10 percent of the year, 26 percent were absent between 11-20 percent of the year, and 16 percent were absent 21-30 percent of the year.

Cleveland

Descriptive data described next for Cleveland combined both secondary and adult students. There were 37 students receiving day care of which only 7 (19 percent) were secondary students. This group of students was compared to a group of 37 students who did not receive day care. There was only one secondary student in the comparison group, so 97 percent of the group was adults.

TABLE 5.7

COURSE COMPLETION AND GRADUATION RATES OF CLEVELAND STUDENTS

Type of Completion	Day Care	No Day Care
Graduation	3	0
	(8.6)	(0.0)
Course Completion	14	6
	(40.0)	(28.6)
Other	18	15
	(51.4)	(71.4)
Total	35	21
	(100.0)	(100.0)

NOTE: Chi-square = 3.17 with 2 degrees of freedom.
Cramer's V = 0.24.
Number of missing observations = 18.

TABLE 5.8

ATTENDANCE RATES OF CLEVELAND STUDENTS

Percent of Days Absent	Day Care	No Day Care
0 - 10	4	7
	(10.8)	(18.9)
11 - 20	6	7
	(16.2)	(18.9)
21 - 30	2	4
	(5.4)	(10.8)
31 - 40	1	2
	(2.7)	(5.4)
41 - 50	1	1
	(2.7)	(2.7)
51 - 100	23	16
	(62.2)	(43.2)
Total	37	37
	(100.0)	(100.0)

NOTE: Chi-square = 3.15 with 5 degrees of freedom.
Cramer's V = 0.21.

Descriptive Data

There was one male secondary student at the Cleveland site receiving day-care services. All other students were female. Seventy percent of the students receiving day care were black. Nineteen percent of the students receiving day care were white, and eleven percent were Hispanic. The data indicated similar characteristics for students who did not receive day care.

The two groups showed different results for marital status and age. Whereas 76 percent of day-care recipients were single, 95 percent of the comparison group was single; the remaining recipients were either married (2.7 percent) or separated (2.7 percent). In comparison, a larger percent of day-care recipients were married (14 percent) or separated (11 percent). The day-care recipients were an older group compared to non-day-care students. Only 49 percent of day-care students were 16 to 18 years old compared to 81 percent of the comparison group. Most of the remaining students in both groups were 19 to 21 years old.

The largest category for grade for both groups was the adult category. Adults represented 38 percent of the day-care recipients and 63 percent of the comparison group. Day-care recipients were also found in grades 7-8 (6 percent), 9-10 (31 percent), 11 (16 percent), and 12 (9 percent). For the comparison group, 3 percent were in grades 7-8, 17 percent in grades 9-10, 13 percent in grade 11, and 3 percent in grade 12.

The living arrangements of students in the Cleveland day-care programs were usually alone (31 percent), with one parent (33 percent), or spouse (14 percent). Only 8 percent of students in day care lived with both parents, and another 14 percent lived with their family or a significant other. For the comparison group, 41 percent lived with one parent, 22 percent lived alone, 16 percent lived with both parents, and 19 percent lived with an individual outside the immediate family. In both groups, the majority of students had one child (approximately 79 percent in each group). Most students in the comparison group (69 percent) had family as alternative day care. Only 36 percent of day-care recipients used family as alternative day care and 33 percent had no alternative day care.

Descriptive data from the Cleveland site indicated that students in both groups lived up-to-10 miles away from school and used the city bus as transportation to school. Day-care recipients also mainly used the city bus to the day-care centers. Most of the day-care students were in business and the GOALS program. The majority of the comparison group were in the GOALS program. Teachers (17 percent), friends (22 percent), and human services agencies (21 percent) were the main sources from which all Cleveland students found information concerning day-care services.

Course Completion, Graduation, or GED Completion Rates

Results for course completion and graduation are displayed in table 5.7. Whereas only 9 percent of day-care recipients graduated, there were no students from the comparison group who graduated. Course completion for students in day-care was 40 percent as opposed to 29 percent for non-day-care students. Of all day-care students, 51 percent had some other reason for leaving school compared to 71 percent of non-day-care students. The most significant reason for leaving school was dropping out. Here, 11 percent of day-care recipients dropped out of school whereas 29 percent of students not receiving day care dropped out.

Attendance Rates

School attendance rates for Cleveland are shown in table 5.8. As seen in the table, the day-care program appeared to influence absenteeism in both a positive and negative way. For day-care recipients, 11 percent of the students were absent 0-10 percent of the school time compared to 19 percent of the students who did not receive day care. However, at the same time, 62 percent of day-care recipients were absent 51-100 percent of the school days. By comparison, 43 percent of students who did not receive day care were absent 51 percent or more of the school days. There was 27 percent of day-care students absent between 21 and 50 percent of the school year. Of the comparison group, 36 percent were absent between 11 and 50 percent of the school year.

Dayton

All students from the Dayton site were secondary students and all were female.

Descriptive Data

Day-care recipients were 83 percent black and 17 percent white. The comparison group was 63 percent black and 38 percent white. The majority of students in both groups (88 percent) were between 16 and 18 years old. The two other age categories, 13-15 and 19-20 were similar in their low percentage of students. Data showed 92 percent of day-care recipients were single whereas the entire comparison group was single.

The majority (96 percent) of both groups of students had on average one child. Of the day-care recipients, most students were living with one parent (68 percent), 18 percent were living alone, and there were 5 percent of the students in each of the following categories: living with both parents, living with spouse, and living with a friend. Results were different for the comparison group. The two living arrangements reported most frequently were

living with both parents (52 percent) or living with one parent (43 percent). The only other category indicated that students were living with other family members (5 percent). The majority (83 percent) of all day-care recipients used their family as alternative day care. The comparison groups' data indicated a variety of types of alternative day care were used: family (48 percent), none (17 percent), and combination (26 percent).

There were 27 percent of day-care recipients in grade 9 or 10, 27 percent in grade 11, and 46 percent in grade 12. By comparison, 68 percent of the Dayton students who did not receive day care were in grades 9 or 10, 32 percent were in grade 11, and none were in grade 12. There were 21 percent of day-care recipients who lived within one mile of the school, another 33 percent who lived 2 or 3 miles from school, and 46 percent who lived 5 or more miles from school. No data on miles between residence and school were recorded for the comparison group. In both groups, the majority of students used either the school or city bus as a means of transportation to school. Day-care recipients usually had either family (29 percent) or other means of transportation (50 percent) to the Dayton day-care centers.

Data indicated that the programs studied by most of the day-care recipients in Dayton were business (25 percent), consumer and homemaking education (21 percent), and GRADS (29 percent). The comparison group students usually enrolled in the business and office program (25 percent) and the consumer and homemaking program (58 percent). The majority (90 percent) of day-care recipients were informed about the day-care programs by teachers.

Course Completion, Graduation, or GED Completion Rates

The results shown in table 5.9 indicated successful graduation and course completion for day-care recipients. Of the total day-care recipient population, 38 percent graduated and 42 percent completed their courses. There were 21 percent of the students who had other reasons for leaving such as moving, not liking the situation, or dropping out. Results concerning the comparison group were not interpreted as there was a high proportion of non-day-care students who did not have type of completion recorded.

Grade Point Average

The GPAs of the day-care recipients in Dayton show a more positive change than the GPAs of the comparison group. Of the day-care recipients, 45 percent showed a negative GPA change, 10 percent had no change in their GPA, and 45 percent displayed a positive change. But when compared to the comparison group, more positive change was revealed for the day-care recipient than for students who had not participated in the day-care program. There was 71 percent of the comparison group that indicated a negative

TABLE 5.9

COURSE COMPLETION AND GRADUATION RATES OF DAYTON SECONDAY STUDENTS

Type of Completion	Day Care	No Day Care
Graduation	9	0
	(37.5)	(0.0)
Course Completion	10	0
	(41.7)	(0.0)
Other	5	1
	(20.8)	(4.0)
Total	24	1
	(100.0)	(100.0)

NOTE: Chi-square = 3.30 with 2 degrees of freedom.
Cramer's V = 0.38.
Number of missing observations = 2.

TABLE 5.10

CHANGE IN GRADE POINT AVERAGES OF DAYTON SECONDARY STUDENTS

Change in Grade Point Average	Day Care	No Day Care
Negative Change	9	12
	(45.0)	(70.6)
No Change	2	2
	(10.0)	(11.8)
Positive Change	9	3
	(45.0)	(17.6)
Total	20	17
	(100.0)	(100.0)

NOTE: Chi-square = 3.21 with 2 degrees of freedom.
Cramer's V = 0.29.
Number of missing observations = 11.

TABLE 5.11

ATTENDANCE RATES OF DAYTON SECONDARY STUDENTS

Percent of Days Absent	Day Care	No Day Care
0 - 10	6	1
	(25.0)	(4.2)
11 - 20	7	9
	(29.2)	(37.5)
21 - 30	4	3
	(16.7)	(12.5)
31 - 40	2	6
	(8.3)	(25.0)
41 - 50	3	2
	(12.5)	(8.3)
51 - 100	2	3
	(8.3)	(12.5)
Total	24	24
	(100.0)	(100.0)

NOTE: Chi-square = 6.36 with 5 degrees of freedom.
Cramer's V = 0.36.

change in the GPA, 12 percent showed no change in GPA, and 18 percent displayed a positive change. Table 5.10 shows the comparison of the change in GPAs for both groups.

Attendance Rates

Table 5.11 displays the frequency that students in the Dayton program were absent from school as compared to secondary student in the comparison group. Day-care recipients appeared to be less likely to be absent than students in the comparison group. Data on the day-care recipients indicated 25 percent of these students were absent 0-10 percent of school days, and 29 percent were absent 11-20 percent of school days. Only 8 percent of the students receiving day care were absent 51-100 percent of the school year. For the comparison group, only 4 percent of the students were absent 0-10 percent of the school year, and 38 percent were absent 11-20 percent of the school year. A slightly higher percentage of non-day-care students (13 percent), were absent 51 percent or more school days than day-care recipients.

Comparison of the Impact of Day-Care Programs for Individual Sites

A comparison of the impact of day-care programs for secondary and adult students for the individual sites is displayed in table 5.12.

TABLE 5.12

COMPARISON OF THE IMPACT OF DAY-CARE PROGRAMS
FOR SECONDARY AND ADULT STUDENTS FOR INDIVIDUAL SITES

Sites	Course Completion	Graduation	GED Completion	Other	Positive Change in GPA	Attendance Rate (0-20 Percent)
Akron						
Type II:						
Secondary students	45.0	30.0	N/A	25.0	44.4	65.0
Adults	13.6	0.0	13.6	72.7	N/A	27.2
Cincinnati						
Type I:						
Secondary students (79%) and Adults (21%)	26.3	15.8	0.0	57.9	41.7	57.9
Cleveland						
Type I and II:						
Secondary students (19%) and Adults (81%)	40.0	8.6	0.0	51.4	N/A	27.0
Dayton						
Type III:						
Secondary students	41.7	37.5	N/A	20.8	45.0	54.2

NOTE: Refer to specific tables in appendix D for sample sizes.
N/A = Not applicable.

CHAPTER VI

SUMMARY

There has been a dramatic increase in the incidence of pregnancy among teenage females in America. The consequences of bearing children out of wedlock appear to be more serious for younger teens since they are less likely to complete high school than older teens. A growing number of these young mothers have chosen to remain unmarried and head their own households. Previous research has shown pregnancy to be the major cause of high school dropout for these teenagers. Consequently, these young mothers have usually obtained poor paying jobs or depended upon government aid programs.

A few special programs have been established to improve the opportunities of young parents to obtain high school diplomas or equivalent degrees across the country. One such program was funded by the Home Economics Section of the Ohio Department of Education, Division of Vocational Education during the 1984-85 school year. The primary purpose of six state-funded day-care projects located in Akron, Cincinnati, Cleveland, Dayton, Rio Grande and Toledo was to determine the impact of day care for secondary and adult vocational students on graduation, course completion, GED completion, attendance rates, and GPAs.

Methodology

In order to meet the specified research objectives, a quasi-experimental design identified by Campbell and Stanley (1963) as the nonequivalent control group design was used. The study included all of the state-funded day-care sites and all students from each day care who were registered or had been registered. One-half of these students were selected to receive day care and the other half became the comparison group. Selection into the two groups was based primarily upon the severity of need that students had for day care. A data collection instrument was developed to collect pertinent end-result information about these students.

There were four major tasks in this study. The first task was to design evaluation procedures and the instrument. The second task was to train day-care personnel from the six funded projects to use the instrument to collect data at their respective

sites. The National Center staff maintained contact with the trained personnel and followed up on the data collection.

The third task was to process and analyze the evaluation information collected by the project personnel. The data were sent to the National Center where they were coded, standardized, and key punched. A computer program was then designed to analyze the data for each site and across all sites. The Statistical Package of the Social Sciences (SPSS) was used for the statistical analysis. Frequency distributions, percentages, cross-tabulations, the chi square, and correlations were the statistical procedures used to answer the research questions.

The fourth task was to report findings in a report format and share a preliminary table of contents and results with the sponsor. The report was then finalized per sponsor recommendations.

Findings

In order to assess the impact of Ohio's day-care programs, secondary and adult students who received day-care services were compared to secondary and adult students who did not. The age, grade in school, race, gender, marital status, number and age of children, educational program, and persons who informed students about day-care services were very similar for the two groups of secondary students. Generally, secondary students were black, single females between 16 and 18 years old who were enrolled in grades 11 or 12; were participating in a home economics course of study, and were informed about day care by a teacher. These teenagers usually had 1 child between 1 and 12 months of age.

There were some differences between the two groups of secondary students indicating differences in the severity of need for day care. The secondary students who received day care were less likely to be living with family and more likely to be living with a single parent or alone, more likely to have no alternative day care available, and more likely to be living farther from school than students who had not received day care services. Of course, these differences were a result of criteria that prioritized selection of students into day-care services who had greater need for day care than students selected for the comparison group.

A comparison of adults who received day-care services to adults who did not revealed that both of the two groups of adults were highly composed of black females who were single and raising one child. Their child was usually under 3 years old. These adults were usually residing alone or with one of their parents within 5 miles of the school. There were also some differences between the two groups of adults. The adults who received day-care services were more likely than adults who did not to be

older, divorced or separated, have no alternative day care available, and enrolled in GOALS.

Individual Sites

Across the six sites in Ohio, there were some differences in the number and way day-care programs were offered during the 1984-1985 school year. First, in Toledo, the infant day-care center did not open, therefore, no students participated. In Rio Grande only three students participated in the day-care program. Thus, findings were not reported for these two sites. Akron and Cleveland, used existing day-care facilities. In addition, Cleveland opened a new facility mid-year. In contrast, Cincinnati reestablished a day-care center within the school and Dayton arranged contractual services in nonpublic school centers.

The day-care programs in Akron served the most students. Akron had 40 secondary students and 22 adult students receiving day care. Cleveland had 7 secondary students and 30 adult students receiving day care while Cincinnati had 15 secondary students and 4 adult students receiving day-care services. Dayton served 24 secondary students and no adults.

When indicators of impact including attendance rates were compared for secondary and adult students in Akron, Cleveland, Dayton, and Cincinnati, there were not large differences. Generally, when the sites were serving primarily secondary students, regardless of type of day care, attendance rates were higher than when sites were serving primarily adults. Furthermore, the proportion of secondary students who had positive changes in GPAs was about the same in Akron, Cleveland, Dayton, and Cincinnati.

There were slight differences in course and GED completion, graduation, and other completion in the four sites. The highest rate of course completion and graduation (79 percent) occurred in Dayton where day-care services were contractual and offered to secondary students only. About 23 percent of secondary students in Dayton were in grade 12. In Akron, 75 percent of secondary students completed courses or graduated when participating in an existing day-care facility. Adults, however, were not nearly as successful in Akron as only about 27 percent completed courses or a GED. The Cleveland existing and new day-care facilities were slightly more successful when serving primarily adults as 40 percent completed courses and 9 percent graduated. These findings are particularly high given that only about 16 percent of all students in day care in Akron and Cleveland combined were in grade 12.

Finally, Cincinnati served primarily secondary students through new day-care facilities. These students were not as

successful as secondary students in Akron and Dayton, even though 30 percent were in grade 12, since only about 42 percent either completed courses or graduated. Comparison across these four sites was somewhat difficult since they were serving different numbers of students and located in different parts of the state and in different types of day-care facilities. Also, 21 percent of the students in Cincinnati were adults.

All Sites

Differences in course completion and graduation were observed for secondary students who received day-care services as opposed to students who had not received those services. More secondary students who had children in day care graduated or completed courses (73 percent) than students who did not have children in day care (40 percent). Of all students who had some other reasons for leaving school, students who did not have their children in day-care services were much more likely to drop out (32 percent) than students who had their children in day care (3 percent).

Differences in course or GED completion occurred for the two groups of adults as well. Whereas 33 percent of adult day-care recipients completed courses or GEDs, only 12 percent of the adult comparison group had done so. Dropout rates were higher for adults who did not have their children in day care (19 percent) than adults who did (6 percent). In contrast, more adults with children in day-care services indicated they had left school because the situation was too hard to manage (18 percent) than adults who did not have children in day care (7 percent).

The findings revealed no difference in attendance rates for secondary and adult students in day care compared to the comparison groups of secondary and adult students. Approximately one-half of all the secondary students were absent 20 percent or less of the school days. About 40 percent of all adults were absent 20 percent or less of the school days.

Changes in GPAs between secondary students in the day-care program and secondary students not in day care were similar. More secondary students in the two groups had negative changes in their GPAs than positive changes. However, the change was less negative for secondary students in day-care programs. A positive change in GPA occurred somewhat more frequently for secondary students who resided with one parent, had family drive them to school, lived farther from school, and took the school bus to school. Grades were not available for either group of adults.

The relationships among various factors and course completion, graduation, or GED completion; attendance rates; and grades were examined. Generally, factors such as age, grade, number of children, availability of other day-care services, and vocational programs were only weakly related to course completion,

graduation, GED completion, attendance, and grades. However, a few of the factors were more highly associated.

For instance, a strong relationship existed between secondary students' grade in school and the way they completed or left school. Students in grades 9 and 10 were the most likely of students in all grades to have some other reason for leaving than completion (52 percent) such as dropout. Students in grade 11 were most likely of students in all grades to complete their courses (81 percent) and students in grade 12 were most likely of students in all grades to graduate (76 percent).

In addition, a moderate relationship existed between vocational programs and attendance rates for adult students. Adults enrolled in occupational home economics attended school more regularly than adults in ABE-GED or GOALS. Although none of the three adults in occupational home economics were absent more than 21 percent of the school days, 70 percent of the adults in GOALS and ABE-GED were absent 21 percent or more of the school days.

Furthermore, attendance rates were moderately related to type of completion for secondary students and adult. Both groups of students, secondary and adult, who attended school regularly were more likely to graduate than students who were frequently absent throughout the school year. The three adults who received GEDs were not absent more than 21 percent of the school days and 60 percent of the adults who completed courses were not absent more than 31 percent of the school days. Of the adults who had some other reason for leaving, 65 percent were absent more than 31 percent of the school days. In addition, students that completed courses were more likely to attend classes more regularly than students that had some other reason for leaving. Whereas 75 percent of secondary students who completed courses were only absent from school up to 30 percent of the school days, 63 percent of students who had some other reason for leaving were absent that some percentage of days.

Conclusions

The conclusions are based on findings and summarized in the following major points:

- The need for day-care services to assist young parents to finish high school will continue, and probably grow, as an increasing proportion of unmarried teenage females have children and raise their children as single parents. Research has established pregnancy as a major reason that young females drop out of high school.

- The children of secondary and adult students have slightly different characteristics. The majority of secondary students have children under 1 year of age whereas the

majority of adults have children under 3 years of age. Furthermore, more adults have two or more children than secondary students.

- Secondary students in grades 9 or 10, students in grades 11 or 12, and adults differ as to their individual characteristics, family structures, and educational needs. Younger secondary students in grades 9 or 10 have more difficulty attending school regularly and staying in school than students in grades 11 or 12 even though they usually live with their parents. Older secondary students in grades 11 and 12 are closer to graduation and more motivated to stay in school regardless of their living arrangements than younger students. Adults, on the other hand, are more likely to live alone and have more children than secondary students. The responsibilities associated with being a single parent and sometimes the sole "bread winner" seems to make finishing school more difficult.

- A high proportion of secondary and adult students are living with their own single parent while attending school. Over one-half of secondary students and nearly one-third of adults are living with one parent. Unfortunately, data were not collected to identify what proportion of secondary and adult students were raised or lived part of their lives with one parent. Research indicates that single parents are much more likely than others to be raised by a single parent, thus perpetuating that life-style throughout generations. A single parent seems to model a life-style that their children emulate more often than the children of two-parent families.

- The data do not support many of the site coordinators' perceptions of the benefits of day care for students. Nor do the findings support the coordinators' perceptions of what appeared to be a major problem for students, namely the need for transportation for students using day care. Generally, the site coordinators thought the grades and attendance of students were positively influenced by participating in day care. However, findings did not indicate that students in day care improved their grades or attendance any differently than non-day-care students.

- The day-care services provided for secondary and adult students were associated with higher rates of course completion, graduation, and GED completion. Secondary and adult students who had day-care services for their children were more likely to complete courses, graduate, or complete GEDs than secondary and adult students who did not receive day-care services.

- The impact of day-care services differed between secondary and adult students. The program appeared to be slightly less effective for adults since the proportion of adults

who completed courses or GEDs was less than the proportion of secondary students who completed courses or graduated. Furthermore, the proportion of adults who were identified as dropping out was twice as high as the dropout rate for secondary students.

- The impact of day-care services differed for secondary students in grades 9 or 10 and 11 or 12 as well. Secondary students in grades 9 or 10 were less likely to complete courses than older students, even when day-care services were provided. Research indicates that once very young students drop out of school, rarely do they return and finish school.

- There were not many differences between day-care services offered through existing, new, or contracted day-care programs. Since these various types of day care were offered in different cities and to students of different ages, the type of day care that led to more successful educational experiences for students could not be determined.

- Attendance by secondary and adult students was moderately related to course completion, graduation, completion of GEDs and other reasons for leaving school besides completion. Secondary and adult students who attended school regularly were more likely to complete courses, graduate, or complete GEDs than secondary and adult students who were absent frequently.

- Factors that were expected to influence completion of courses and school, attendance and grades such as mode of transportation, distance of students' residence to school, and alternative day care available to students had little impact. Generally, these factors were not associated with increased course or GED completion or graduation for secondary and adult students.

Recommendations

The study recommendations are directed primarily to the Home Economics Section staff of the Ohio Division of Vocational Education. These state-level program coordinators, who are interested in optimizing educational opportunities for secondary and adult students who risk not finishing high school, should give careful attention to these recommendations. Recommendations are also made for local coordinators of day-care programs in an attempt to help them improve their programs.

Ohio Division of Vocational Education--
Home Economics Section Staff

To the Ohio Division of Vocational Education Home Economics Section staff, the following is recommended:

- Continue the day-care program so that all secondary and adult students who need day-care services for their children have improved opportunities to complete their courses and finish high school.

- Provide appropriate day care for secondary and adult students. The emphasis at the secondary level should be on providing infant care for secondary students since their children are usually very young. A secondary emphasis should be placed on care of older preschool children since fewer children of secondary students are toddlers or older. Infant care and child care should be provided for the children of adults since these children usually represent a wide range of ages.

- Provide administrative assistance to local site coordinators to help them set up day-care programs. Make sure legal aspects of setting up day-care programs are understood by local site coordinators. Provide copies of legislation needed by local site coordinators and assist them in establishing communication networks among themselves.

- Modify the day-care program for secondary students in grades 9 or 10, and 11 or 12, and for adult students. Three different types of day-care programs should be provided for students at these three levels. More emphasis should be placed upon improving attendance among secondary students in grades 9 and 10 and among adult students who are most likely to drop out of school. These findings indicate attending school regularly is associated with completing courses and graduating. Although factors such as transportation and distance to school are not highly related to completion, there may be other factors associated with school attendance that need to be investigated. For example, research suggests that health problems among young pregnant females are a possible factor contributing to dropping out. Poor health of young teenagers and their children also frequently leads to poor attendance. Another factor that may influence attendance among both secondary and adult students is involvement in criminal activity. A third variable that may influence attendance, particularly among adults, is employment. When adults are employed and conflicts arise between whether to go to work or to school, many adults may choose the job and the paycheck over school. These variables, and others, need to be studied in order to reduce

absenteeism and increase the likelihood of course completion and graduation.

- Determine through additional research whether one type of service is more effective than another such as school district managed day care or day-care services contracted with private providers. This research should address such programming features as staffing, convenience for the participant, support services, crisis prevention services and job placement. Besides examining day-care programs in Ohio, the research should identify model programs in other parts of this country and in other cultures. For example, a study of day care in the Netherlands, where a socialized system of day care is more prominent than the United States may provide many ideas for improving Ohio's programs. This research may also benefit other home economics programs that educate students for employment in day-care programs.

- Determine through additional research the extent to which students who graduate from high school and adults who pass the GED find employment or continue their education. This is an inevitable question for any vocational program. Follow-up studies of graduates could yield powerful evidence regarding the effectiveness of the day-care program.

- Continue to collect impact data on secondary students and adults who participate in Ohio's day-care programs. The following modifications are recommended in order to improve the quality of information collected:

  --Revise the instrument to make items more specific and relevant for secondary students and adults.

  --Improve the directions and training provided for data collectors.

  --Increase the involvement of researchers in data collection through on-site administration of questionnaires. Conduct personal interviews with secondary and adult students to obtain a better understanding of why individuals do not finish their courses or school.

  --Continue to collect data about the gross number of school days a student is absent throughout the year as well as the duration of absence periods (i.e., 1 day per month versus 1 week per month), and the prevalence of absence among classmates.

  --Define dropping out as leaving school and not participating in any more schooling during the entire

school year. Then, determine the number of secondary and adult students who fall into that category.

--Discontinue collecting grade point average data as they were difficult to collect and not associated with attendance or type of completion.

--Add an impact measure indicating the progress secondary and adult students make toward obtaining GEDs or diplomas. For example, what are the number of Carnegie units that secondary students complete when participating in the day-care program? These data are necessary to determine the progress adults and students in grades 9, 10, and 11 make toward graduation or GED completion.

--Continue to collect assessments of site coordinators toward their day-care programs along with impact data. Recognize, however, that the assessments of site coordinators should focus upon information that coordinators can provide accurately.

--Recognize that for the day-care program to have an impact on the graduation rates of students in grades 9 or 10, these students must stay in school for a 3 or 4 year period. If a high proportion of these students dropout, then the day-care program will not be accomplishing the purpose of retaining the students until graduation. The program will fail to serve secondary students who have the most severe need for assistance in order to graduate. Thus, the data collection should follow these students over that same 3 to 4 year period in order to assess the impact of the day-care program.

- Conduct a research study to explore factors that are associated with increased incidences of teenage pregnancy. Such research could help improve understanding of this phenomenon and provide information about various ways for home economics programs to serve young single parents. Determine to what extent changes in the following areas are associated with teenage pregnancy and the decision by more and more young females to raise their children alone:

--Self-image and self-esteem

--Relationships between teenage females and their parent(s)

--Sex education

--Sexual activity

--Income level

--Attitudes toward school subjects and school rules

--Peer influence and prevalence of pregnancy among peers

--Attitudes of teenage females toward pregnancy out of wedlock and adoption

--Presence of a single mother

--Knowledge of child development

- Conduct research to determine the reasons why some students in high-risk groups do not become single parents and are successful in school while other high-risk group students dropout to be single parents.

Local Day-care Coordinators

To the local day-care coordinators, the following is recommended:

- Provide infant care and older preschool child care when adult students are served. Infant care is essential for secondary students and child care should receive secondary emphasis.

- Remain flexible when administering the day-care program in the early years. As characteristics of students are better understood, investment in transportation and other services may be appropriate. However, at this early date, the data generally do not indicate that these investments would improve the program or increase the impact of the program on students' completion and attendance rates.

APPENDICES

Appendix A: Baseline Management Plan

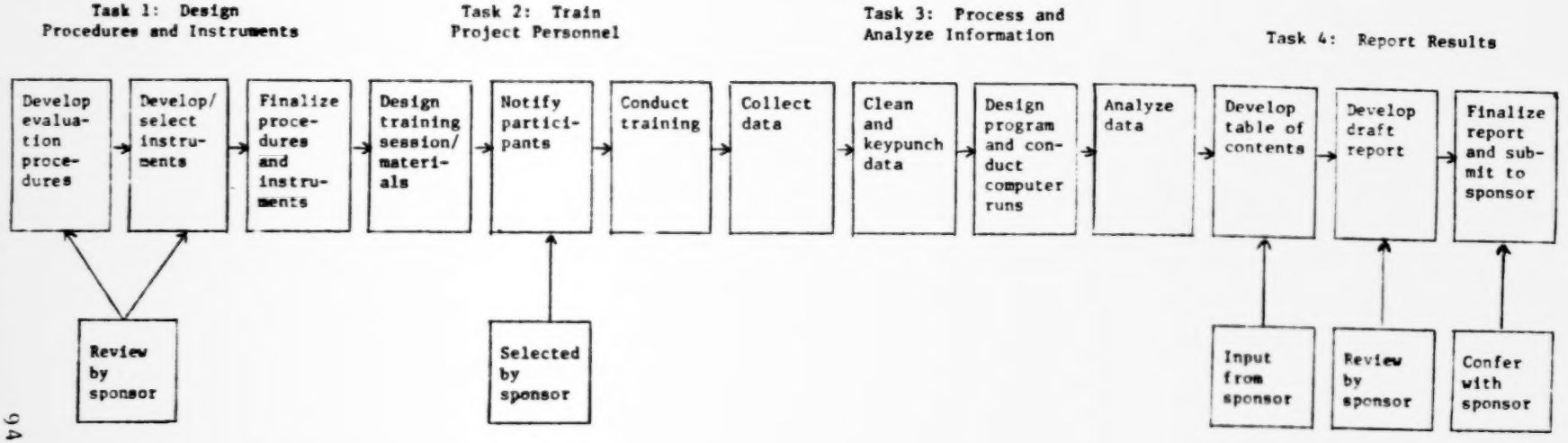


Figure A.1. Baseline Management Plan

Appendix B: Data Collection Instrument and Table of Nonresponses

DAY CARE PROJECT

Student Data

Please circle the correct answer or fill in the blanks for each question. Keep this form until all the information is collected in June. Although the student's name **will not** be used in the analysis or report, please write it in the blank.

Data collector _____ Telephone (____) _____

1	LOCATION	1 Akron 4 Dayton	2 Cincinnati 5 Rio Grande	3 Cleveland 6 Toledo
2-3	SITE/BUILDING	# _____	NAME _____	
	STUDENT NAME _____			
4-6	STUDENT NUMBER ___	(Assign each student a different number, beginning with 001, 002, 003, etc.)		
7	SEX	1 Female	2 Male	
8	GRADE	1 7th 4 10th 7 Adult	2 8th 5 11th 9 Don't know	3 9th 6 12th
9-10	AGE	__ (in years—write 99 if don't know)		
11	RACE	1 Black 4 Other	2 Caucasian 9 Don't know	3 Hispanic
12	MARITAL STATUS	1 Single 9 Don't know	2 Married	3 Separated/ divorced
13	LIVING WITH	1 Both parents 4 Other family 7 Children's Services/group home	2 Spouse 5 Friend/roommate 8 One parent	3 Spouse equivalent 6 Alone 9 Don't know
14	NUMBER OF CHILDREN	_ (write actual number or 9 if don't know)		
15-16	APPROXIMATE DISTANCE FROM HOME TO SCHOOL/DAY CARE CENTER (IN MILES)	__ (write 99 if don't know)		

(continued)

17-18 **STUDENT'S PROGRAM IN SCHOOL** (Circle up to 2 categories)

19-20

SECONDARY
1 Business and Marketing Education (includes OWA)
2 Home Ec—Job
3 Home Ec—Homemaking
4 Home Ec—GRADS
5 Home Ec—IMPACT
6 Agriculture
7 Trade & Industrial (includes OWE)
8 Health Careers
9 Other _____

ADULT
10 Displaced Homemaker
11 Transitions
12 Goals
13 ABE/GED
14 Business & Marketing Education
15 Occupational Home Economics
16 Agriculture
17 Trade & Industrial
18 Health Careers
19 Other _____
99 Don't know

21-23 ABSENCE THIS SCHOOL YEAR ___ days absent of

24-26 TOTAL NUMBER OF SCHOOL DAYS ___

27-30 GRADE POINT AVERAGE FOR 2 SEMESTERS **PRIOR** TO DAY CARE PROGRAM
(in numbers, for example 2.5) ___ and ___ (most recent)

31-34 DATE END OF SCHOOL/PROGRAM Month ___ Day ___

35 IN DAY CARE PROGRAM? 1 Yes 2 No

36-39 IF YES—DATE Entered Program Month ___ Day ___

40-43 IF NO—DATE Not Accepted Month ___ Day ___

44 IF NO—WHY NOT 1 No space in program 2 no transportation to day care
3 have alternative day care 4 Other _____
9 Don't know

(continued)

ALTERNATIVE DAY CARE WHEN/IF NOT IN DAY CARE PROGRAM

45

1 Mother, other family	2 Spouse, spouse equivalent
3 Friend	4 Other day care service
5 None/none reliable	6 Other _____
7 Combination of several above	9 Don't know

MODE OF TRANSPORTATION TO DAY CARE PROGRAM

46

1 Walk	2 Own car
3 Family drives	4 City bus
5 Friend drives	6 Other _____
7 Not in day care	9 Don't know

MODE OF TRANSPORTATION TO SCHOOL

47

1 Walk	2 Own car
3 Family drives	4 City bus
5 Friend drives	6 School bus
7 Other _____	9 Don't know

48 NUMBER OF CHILDREN IN DAY CARE PROGRAM OR TRYING TO PLACE IN DAY CARE ____

AGES OF CHILDREN WHEN ENTERING PROGRAM OR TRYING TO ENTER PROGRAM

49-50 Child No. 1 ___ months
51-52 Child No. 2 ___ months
53-54 Child No. 3 ___ months
55-56 Child No. 4 ___ months
57-58 Child No. 5 ___ months

59-60 GRADE POINT AVERAGE WHEN LEFT IN PROGRAM/OR END OF SCHOOL YEAR (IN NUMBERS, e.g., 2.5) ___

61-64 DATE LEFT DAY CARE PROGRAM
Month ___ Day ___ (Leave blank if never enrolled.)

REASON FOR LEAVING

65-66

1 Graduated	2 Completed GED
3 Completed course	4 Moved
4 No transportation	6 Too hard to manage
5 Went to regular school	8 Found other day care
9 Didn't like day care program	10 Dropped out of school
11 Other _____	99 Don't know

(continued)

67-68 | HOW STUDENT FOUND OUT ABOUT PROGRAM

1. Teacher
2. Guidance counselor
3. Friend
4. Family
5. Hospital
6. Welfare
7. Clergy/church
8. Radio
9. Newspaper
10. Flyers
11. Children's Services
12. Other _____
99. Don't know

Note: If you were **unable to answer** some of the questions, please indicate the reasons below. Examples: Grade point average prior to Day Care Program information not released by home school, or, student moved out of city and left no forwarding address. This will record some of the problems with collecting the data.

THANK YOU!

THE NATIONAL CENTER
FOR RESEARCH IN VOCATIONAL EDUCATION

TABLE B.1

NUMBER AND PERCENTAGE OF NONRESPONSES TO ITEMS
FOR TOTAL SAMPLE ACROSS ALL SITES

Question Code No.	Percentage of Nonresponse	Raw Number
7	1.0	3
8	5.5	16
9-10	0.3	1
11	1.0	3
12	1.4	4
13	3.8	11
14	1.3	4
15-16	18.3	53
17-18[a]	24.5	71
19-20[b]	53.4	155
21-23]		
24-26]	5.5	16
27-30	52.4	152
35	1.0	3
44[c]	64.1	186
45	2.1	6
46	1.0	3
47	1.3	4
48	9.3	27
49-50	17.9	52
51-52[d]	88.0	258
53-54[e]	99.7	289
59-60	46.2	134
65-66	27.6	80
67-68	13.8	40

[a]Program 1
[b]Program 2
[c]Percentage and number are high as day-care recipients are included as nonrespondents
[d]Percentages and numbers are high as individuals with only one child are included as nonrespondents
[e]Percentages and numbers are high as individuals with two or less children are included as nonrespondents

Appendix C: Training Workshop Questionnaires Completed By Site Coordinators

DAY CARE PROJECT
SITE COORDINATION DATA

Site: _____

Project Director: _____

Address: _____

_____ Zip Code _____

Phones: Work_____ Home _____

Persons who will be accompanying you to the National Center for training in data collection on February 21, 1985.

1. Name: _____

   Position: _____

   School/Program: _____

   Address: _____ Zip Code _____

   Phones: Work_____ Home_____

2. Name _____

   Position: _____

   School/Program: _____

   Address: _____ Zip Code _____

   Phones: Work_____ Home_____

ALTERNATIVE or ADDITIONAL PERSON

3. Name: _____

   Position: _____

   School/Program: _____

   Address: _____ Zip Code _____

   Phones: Work_____ Home_____

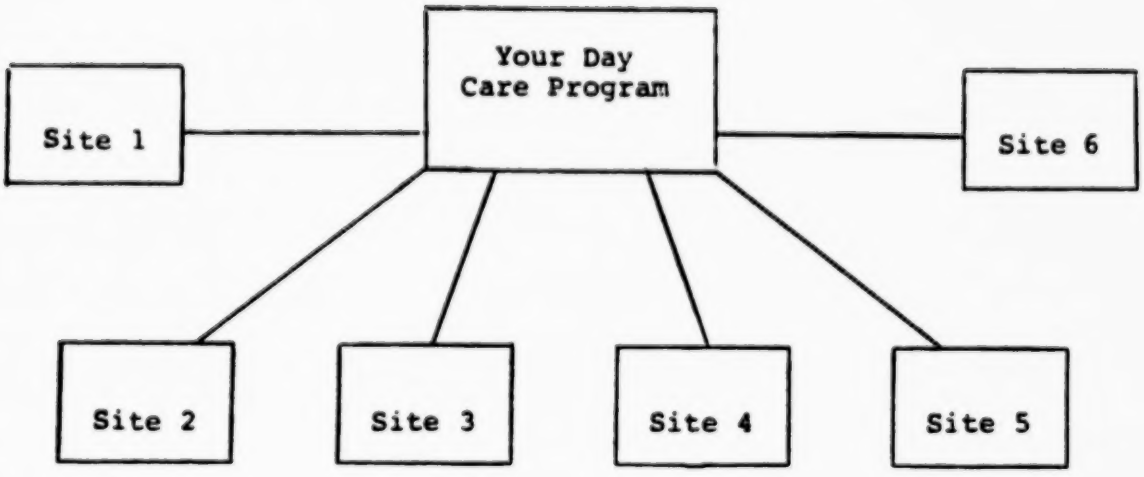
Please return this form by February 15 in the enclosed envelope to Dr. Ida Halasz at the National Center for Research in Vocational Education. THANK YOU.

DAY CARE PROGRAM

ORGANIZATIONAL CHART

Director_____ City _____

Please show how your Day Care program fits into the organizational structure of your school system. Use boxes and lines to show links between the superintendent's office and your program.



DAY CARE PROGRAM
DESCRIPTIVE INFORMATION

Program _____ Director _____

City _____ Date _____

Person(s) completing this form _____

A. Your program is best described as: (circle one)

- o contracted to other agencies
- o new in school(s)
- o expanded in school(s) (some old, some new)

B. If contracted, please provide information for each site:

Site/Agency	Address	Contact Person	Phone #
1.			
2.			
3.			
4.			
5.			
6.			

C. For all sites, please provide the following information:

Site/Building	Programs/Classes	Date Started	# Sec. Students	# Children	# Adult Students	# Children
1.						
2.						
3.						
4.						
5.						
6.						

D. What is the ratio of children to adults at each site?

1. 2. 3.
4. 5. 6.

E. What criteria do you use to select secondary students for the programs?

F. How many secondary students applied for the program? ____ How many accepted? ____ Why weren't the others accepted?

G. What criteria do you use to select adult students for the program?

H. How many adult students applied for the program? ____ How many were accepted? ____ Why weren't the others accepted?

DAY CARE PROGRAM
EVALUATION

1. What are the most critical problems you have related to your DAY CARE program?

2. Aside from more $$, what are your recommendations for improving the program?

3. If more $$ were available for FY 85-86, say $50,000 for your program, how would you spend it?

4. If you had to cut your program in half for FY 85-86, what would you eliminate?

5. Describe as many benefits of this program that you personally have witnessed or have reliable reports of occurring.

Your name (optional)_____ Date _____

Program _____ City _____

THANK YOU!

Appendix D: Descriptive Tables

TABLE D.1
INDIVIDUAL CHARACTERISTICS OF SECONDARY AND ADULT STUDENTS ACROSS ALL SITES

Individual Characteristics		Secondary Students		Adult Students	
		Day Care	No Day Care	Day Care	No Day Care
Sex:	Female	98.9	100.0	100.0	100.0
	Male	1.1	0.0	0.0	0.0
	Total	100.0	100.0	100.0	100.0
Race:	Black	90.7	77.4	69.6	72.4
	White	17.0	20.2	21.4	24.1
	Hispanic	1.1	0.0	5.4	3.4
	Other	1.1	2.4	3.6	0.0
	Total	100.0	100.0	100.0	100.0
Age:	13-15	7.9	9.6	0.0	0.0
	16-18	80.9	80.7	35.7	58.3
	19-21	11.2	9.6	33.9	16.7
	22-24	0.0	0.0	16.1	13.3
	25-29	0.0	0.0	14.3	11.7
	Total	100.0	100.0	100.0	100.0
Grade:	7-8	0.0	1.2	3.6	1.9
	9-10	35.0	48.1	17.0	9.3
	11-12	60.6	50.6	9.4	9.3
	Adult	1.2	0.0	69.6	79.6
	Total	100.0	100.0	100.0	100.0

TABLE D.2
FAMILY CHARACTERISTICS OF SECONDARY AND ADULT STUDENTS ACROSS ALL SITES

Family Characteristics		Secondary Students		Adult Students	
		Day Care	No Day Care	Day Care	No Day Care
Alternative Day Care:	Family	54.0	54.2	34.5	41.4
	Spouse	3.4	2.4	9.1	1.7
	Friend	3.4	8.4	9.1	5.2
	None	27.6	9.8	41.8	34.5
	Other	2.3	8.4	0.0	10.3
	Combination	9.2	16.9	5.5	6.9
	Total	100.0	100.0	100.0	100.0
Living with:					
	Both parents	11.8	32.9	7.1	10.3
	Spouse	2.4	3.8	10.7	3.4
	Spouse equivalent	4.7	1.3	12.5	0.0
	Other family	4.7	10.1	7.1	5.2
	Friend	1.2	2.5	0.0	1.7
	Alone	17.8	3.8	35.7	37.9
	One Parent	57.6	45.6	26.8	36.2
	Group	0.0	0.0	0.0	5.2
	Total	100.0	100.0	100.0	100.0
No. of Children:					
	1	86.5	92.8	58.9	66.7
	2-4	13.5	7.2	41.1	33.3
	Total	100.0	100.0	100.0	100.0
Marital Status:					
	Single	93.3	96.4	75.0	91.2
	Divorced	5.6	3.6	10.7	3.5
	Separated	1.1	0.0	14.3	5.3
	Total	100.0	100.0	100.0	100.0

TABLE D.3
SCHOOL INFORMATION OF SECONDARY AND ADULT STUDENTS ACROSS ALL SITES

School Information	Secondary Students		Adult Students	
	Day Care	No Day Care	Day Care	No Day Care
Program 1:				
Business	22.5	13.1	0.0	0.0
Occ. Home Ec.	11.2	9.5	0.0	0.0
Homemaking	19.1	40.5	0.0	0.0
Grads	22.5	21.4	0.0	0.0
Trade & Industry	5.6	4.8	0.0	0.0
Health	3.4	1.2	0.0	0.0
Other	15.7	9.5	14.3	11.1
GOALS	0.0	0.0	75.0	38.9
ABE-GED	0.0	0.0	10.7	50.0
Total	100.0	100.0	100.0	100.0
Distance from School in Miles:				
1	18.8	20.5	20.4	24.1
2	24.7	34.1	18.5	18.5
3	12.9	11.4	11.1	9.3
4	15.3	13.8	9.3	9.3
5	16.5	4.5	16.7	16.7
6-10	10.6	2.3	16.5	22.2
11 plus	1.2	13.6	5.6	0.0
Total	100.0	100.0	100.0	100.0
Transportation to School:				
Walk	9.0	17.3	14.3	11.7
Own car	4.5	1.2	8.9	3.3
Family	11.2	2.5	14.3	5.0
City bus	61.8	45.7	55.4	80.0
Friend	3.4	7.4	7.1	0.0
School bus	4.5	23.5	0.0	0.0
Other	5.6	1.2	0.0	0.0
Total	100.0	100.0	100.0	100.0
Transportation to Day Care:				
Walk	7.9	n/a	14.3	n/a
Own car	6.7	n/a	8.9	n/a
Family	23.6	n/a	14.3	n/a
City bus	29.2	n/a	55.4	n/a
Friend	4.5	n/a	7.1	n/a
Other	20.2	n/a	0.0	n/a
Total	100.0	100.0	100.0	100.0

TABLE D.4

PROGRAM INFORMATION OF
SECONDARY AND ADULT STUDENTS ACROSS ALL SITES

Program 1	Secondary	Adult	Program 2	Secondary	Adult
Business	17.9	0.0	Business	0.0	0.9
Occ. Home Ec.	10.4	0.0	Homemaking	5.3	0.0
Homemaking	29.5	0.0	Grads	52.6	0.0
Grads	22.0	0.0	Trade & Ind.	15.8	0.0
Trade & Ind.	5.2	0.0	Health	10.5	0.0
Health	2.3	0.0	Other	15.8	12.1
Other	12.7	13.0	GOALS	0.0	54.3
GOALS	0.0	60.9	ABE-GED	0.0	30.2
ABE-GED	0.0	26.1	Occ. Home Ec.	0.0	0.0
Total	100.0	100.0		100.0	100.0

TABLE D.5

RELATIONSHIPS BETWEEN AGE AND
COURSE COMPLETION, GRADUATION, OR GED COMPLETION
FOR SECONDARY AND ADULT STUDENTS

Age	Type of Completion			
	GED	Graduation	Course(s)	Other
Secondary Students[a]				
13-15	0 (0.0)	0 (0.0)	3 (8.3)	4 (16.7)
16-18	0 (0.0)	24 (85.7)	30 (83.3)	17 (70.8)
19-21	0 (0.0)	4 (14.3)	3 (8.3)	3 (12.5)
Total	0 (0.0)	28 (31.8)	36 (40.9)	24 (27.3)
Adult Students[b]				
16-18	1 (33.3)	0 (0.0)	3 (20.0)	15 (40.5)
19-21	0 (0.0)	0 (0.0)	9 (60.0)	10 (27.0)
22-24	1 (33.3)	0 (0.0)	1 (6.7)	7 (18.9)
25-29	1 (33.3)	0 (0.0)	2 (13.3)	5 (13.5)
Total	3 (5.5)	0 (0.0)	15 (27.3)	37 (67.3)

[a]Chi-square is 5.46 with 4 degrees of freedom.
Cramer's V is 0.10.
Number of missing observations = 1.

[b]Chi-square is 8.07 with 6 degrees of freedom.
Cramer's V is 0.27.
Number of missing observations = 1.

TABLE D.6

RELATIONSHIPS BETWEEN GRADE IN SCHOOL AND COURSE COMPLETION, GRADUATION, OR GED COMPLETION FOR SECONDARY AND ADULT STUDENTS

Grade in School	Type of Completion			
	GED	Graduation	Course(s)	Other
Secondary Students[a]				
9-10	0 (0.0)	0 (0.0)	10 (29.4)	11 (47.8)
11	0 (0.0)	0 (0.0)	21 (61.8)	5 (21.7)
12	0 (0.0)	28 (100.0)	2 (5.9)	7 (30.4)
Adult	0 (0.0)	0 (0.0)	1 (2.9)	0 (0.0)
Total	0 (0.0)	28 (32.9)	34 (40.0)	23 (27.1)
Adult Students[b]				
7-8	0 (0.0)	0 (0.0)	1 (7.7)	1 (2.8)
9-10	0 (0.0)	0 (0.0)	2 (15.4)	7 (19.4)
11	0 (0.0)	0 (0.0)	3 (23.1)	5 (5.6)
Adult	3 (100.0)	0 (0.0)	7 (53.8)	26 (72.2)
Total	3 (5.8)	0 (0.0)	13 (25.0)	36 (69.2)

[a]Chi-square is 66.14 with 6 degrees of freedom.
Cramer's V is 0.62.
Number of missing observations = 4.

[b]Chi-square is 5.62 with 6 degrees of freedom.
Cramer's V is 0.23.
Number of missing observations = 4.

TABLE D.7

RELATIONSHIPS BETWEEN NUMBER OF CHILDREN AND COURSE COMPLETION, GRADUATION, OR GED COMPLETION FOR SECONDARY AND ADULT STUDENTS

Number of Children	Type of Completion			
	GED	Graduation	Course(s)	Other
Secondary Students[a]				
1	0 (0.0)	24 (85.7)	30 (83.3)	22 (91.7)
2-4	0 (0.0)	4 (14.3)	6 (16.7)	2 (8.3)
Total	0 (0.0)	28 (31.3)	36 (40.9)	24 (27.3)
Adults Students[b]				
1	1 (33.3)	0 (0.0)	11 (73.3)	20 (54.1)
2-4	2 (67.7)	0 (0.0)	4 (26.7)	17 (45.9)
Total	3 (5.5)	0 (0.0)	15 (27.3)	37 (67.3)

[a]Chi-square is .86 with 2 degrees of freedom.
Cramer's V is 0.10.
Number of missing observations = 1.

[b]Chi-square is 2.44 with 2 degrees of freedom.
Cramer's V is 0.21.
Number of missing observations = 1.

TABLE D.8

RELATIONSHIPS BETWEEN STUDENTS' EDUCATIONAL PROGRAMS AND COURSE COMPLETION, GRADUATION, OR GED COMPLETION FOR SECONDARY AND ADULT STUDENTS

Vocational Programs	Types of Completion			
	GED	Graduation	Course(s)	Other
Secondary Students[a]				
Business and Office	0 (0.0)	6 (21.4)	11 (30.6)	3 (12.5)
Occ. home ec.	s 0 (0.0)	2 (7.1)	5 (13.9)	3 (12.5)
Consumer and homemaking	0 (0.0)	4 (14.3)	7 (19.4)	5 (20.8)
GRADS	0 (0.0)	7 (25.0)	6 (16.7)	7 (29.2)
Trade and industry	0 (0.0)	0 (0.0)	2 (5.6)	3 (12.5)
Health occupations	0 (0.0)	1 (3.6)	1 (2.8)	1 (4.2)
Other	0 (0.0)	8 (28.6)	4 (11.1)	2 (8.3)
Total	0 (0.0)	28 (31.8)	36 (40.9)	24 (27.3)
Adult Students[b]				
GOALS	0 (0.0)	0 (0.0)	12 (40.0)	18 (60.0)
ABE-GED	3 (13.6)	0 (0.0)	3 (13.6)	16 (72.7)
Occ. home ec.	0 (0.0)	0 (0.0)	0 (0.0)	3 (100.0)
Total	3 (5.6)	0 (0.0)	15 (27.3)	37 (67.3)

[a]Chi-square is 12.05 with 12 degrees of freedom.
Cramer's V is 0.26.
Number of missing observations = 1.

[b]Chi-square is 9.41 with 4 degrees of freedom.
Cramer's V is 0.29.
Number of missing observations = 1.

TABLE D.9

RELATIONSHIPS BETWEEN ALTERNATIVE DAY CARE
AND COURSE COMPLETION, GRADUATION, OR GED COMPLETION
FOR SECONDARY AND ADULT STUDENTS

	Types of Completion			
Alternative Day Care	GED	Graduation	Course(s)	Other
Secondary Students[a]				
Family	0 (0.0)	16 (57.1)	19 (52.8)	12 (0.0)
Spouse	0 (0.0)	2 (7.1)	1 (2.8)	0 (0.0)
Friend	0 (0.0)	1 (3.6)	0 (0.0)	2 (8.7)
Other	0 (0.0)	5 (17.9)	12 (33.3)	7 (30.4)
Combination of above	0 (0.0)	2 (7.1)	0 (0.0)	0 (0.0)
None	0 (0.0)	2 (7.1)	4 (11.1)	2 (8.7)
Total	0 (0.0)	28 (32.2)	36 (41.4)	23 (26.4)
Adult Students[b]				
Family	2 (66.7)	0 (0.0)	4 (26.7)	13 (36.1)
Spouse	0 (0.0)	0 (0.0)	2 (13.3)	3 (8.3)
Friend	0 (0.0)	0 (0.0)	1 (6.7)	3 (8.3)
Combination of above	0 (0.0)	0 (0.0)	1 (6.7)	2 (5.6)
None	1 (33.3)	0 (0.0)	7 (46.7)	15 (41.7)
Total	3 (5.6)	0 (0.0)	15 (27.8)	36 (66.7)

[a]Chi-square is 11.05 with 10 degrees of freedom.
Cramer's V is 0.25.
Number missing observations = 2.

[b]Chi-square is 2.34 with 8 degrees of freedom.
Cramer's V is 0.15.
Number missing observations = 2.

TABLE D.10

RELATIONSHIPS BETWEEN STUDENTS' EDUCATIONAL PROGRAMS AND ATTENDANCE RATES FOR SECONDARY AND ADULT STUDENTS

Vocational Programs	Percentage of Days Absent					
	0-10%	11-20%	21-30%	31-40%	41-50%	51-100%
Secondary Students[a]						
Business and office	7 (35.0)	5 (25.0)	3 (15.0)	2 (10.0)	0 (0.0)	3 (15.0)
Occ. home ec.	0 (0.0)	7 (70.0)	0 (0.0)	2 (20.0)	0 (0.0)	1 (10.0)
Consumer homemaking	3 (17.6)	4 (23.5)	4 (23.5)	2 (11.8)	1 (5.9)	3 (17.6)
Trade and industry	1 (20.0)	0 (0.0)	1 (20.0)	2 (40.0)	0 (0.0)	1 (20.0)
GRADS	4 (20.0)	6 (30.0)	5 (25.0)	0 (0.0)	2 (10.0)	3 (15.0)
Health occupation	1 (33.3)	2 (66.7)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Other	4 (28.6)	6 (42.9)	3 (21.4)	0 (0.0)	1 (7.1)	0 (0.0)
Total	20 (22.5)	30 (33.7)	16 (18.0)	8 (9.0)	4 (4.5)	11 (12.4)
Adult Students[b]						
GOALS	4 (12.9)	6 (19.4)	2 (6.5)	1 (3.2)	1 (3.2)	17 (54.8)
ABE-GED	3 (13.6)	3 (13.6)	4 (18.2)	5 (22.7)	3 (13.6)	4 (18.2)
Occ. home ec.	2 (66.7)	1 (33.3)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Total	9 (16.1)	10 (17.9)	6 (10.7)	6 (10.7)	4 (7.1)	21 (37.5)

[a]Chi-square is 32.15 with 30 degrees of freedom.
Cramer's V is 0.27.

[b]Chi-square is 20.59 with 10 degrees of freedom.
Cramer's V is 0.43.

TABLE D.11

RELATIONSHIPS BETWEEN ALTERNATIVE DAY CARE
AND ATTENDANCE RATES FOR SECONDARY AND ADULT STUDENTS

Alternative Day Care	Percentages of Days Absent					
	0-10%	11-20%	21-30%	31-40%	41-50%	51-100%
Secondary Students[a]						
Family	14 (29.0)	12 (25.5)	9 (19.1)	5 (10.6)	3 (6.4)	4 (8.5)
Spouse	1 (33.3)	2 (66.7)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Friend	0 (0.0)	2 (66.7)	1 (33.3)	0 (0.0)	0 (0.0)	0 (0.0)
Other	1 (50.0)	1 (50.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Combination of above	0 (0.0)	3 (37.5)	3 (37.5)	0 (0.0)	0 (0.0)	0 (0.0)
None	4 (16.7)	1 (41.7)	8 (12.5)	3 (12.5)	1 (4.2)	3 (12.5)
Total	20 (22.5)	30 (33.7)	16 (18.0)	8 (9.0)	4 (4.5)	11 (12.4)
Adult Students[b]						
Family	4 (22.1)	4 (21.1)	1 (5.3)	1 (5.3)	2 (10.5)	7 (36.8)
Spouse	0 (0.0)	0 (0.0)	1 (20.0)	1 (20.0)	0 (0.0)	3 (60.0)
Friend	1 (20.0)	1 (20.0)	0 (0.0)	2 (40.0)	1 (20.0)	0 (0.0)
Combination of above	1 (33.3)	0 (0.0)	1 (33.3)	1 (33.3)	0 (0.0)	0 (0.0)
None	3 (13.0)	5 (21.0)	3 (13.0)	1 (4.3)	1 (4.3)	10 (43.5)
Total	9 (16.1)	10 (17.9)	6 (10.7)	6 (10.7)	4 (7.1)	21 (37.5)

[a]Chi-square is 31.49 with 30 degrees of freedom.
Cramer's V is 0.27.
Number missing observations = 2.

[b]Chi-square is 21.67 with 8 degrees of freedom.
Cramer's V is 0.28.
Number missing observations = 1.

TABLE D.12

RELATIONSHIP BETWEEN CHANGE IN GRADE POINT AVERAGES AND AGE FOR SECONDARY STUDENTS

Age	Change in GPA			
	Negative	None	Positive	Unknown
13 - 15	2 (5.6)	0 (0.0)	4 (12.9)	1 (5.9)
16 - 18	31 (86.1)	4 (80.0)	25 (80.6)	12 (70.6)
19 - 21	3 (8.3)	1 (20.0)	2 (6.5)	4 (23.5)
Total	36 (40.4)	5 (5.6)	31 (34.8)	17 (19.1)

NOTE: Chi-square is 5.60 with 6 degrees of freedom.
Cramer's V is 0.18.

TABLE D.13

RELATIONSHIP BETWEEN CHANGE IN GRADE POINT AVERAGES AND GRADE IN SCHOOL FOR SECONDARY STUDENTS

Grades in School	Change in GPA			
	Negative	None	Positive	Unknown
9 - 10	7 (19.4)	1 (20.0)	6 (19.4)	7 (41.2)
11 - 12	29 (80.6)	4 (80.0)	23 (74.2)	7 (41.2)
Unknown	0 (0.0)	0 (0.0)	2 (6.4)	3 (17.7)
Total	36 (40.4)	5 (5.6)	31 (34.8)	17 (19.1)

NOTE: Chi-square is 16.50 with 12 degrees of freedom.
Cramer's V is 0.25.

TABLE D.14

RELATIONSHIP BETWEEN CHANGE IN GRADE POINT AVERAGES AND NUMBER OF CHILDREN FOR SECONDARY STUDENTS

Number of Children	Change in GPA			
	Negative	None	Positive	Unknown
1	28 (77.8)	5 (100.0)	28 (90.3)	16 (94.1)
2 - 4	8 (22.2)	0 (0.0)	3 (9.7)	1 (5.9)
Total	36 (40.4)	5 (5.6)	31 (34.8)	17 (19.1)

NOTE: Chi-square is 4.36 with 3 degrees of freedom.
Cramer's V is 0.22.

TABLE D.15

RELATIONSHIP BETWEEN CHANGE IN GRADE POINT AVERAGES AND EDUCATIONAL PROGRAM FOR SECONDARY STUDENTS

Educational Programs	Change in GPA			
	Negative	None	Positive	Unknown
Business and office	13 (36.1)	2 (40.0)	2 (6.5)	3 (17.6)
Occ. home ec.	3 (8.3)	0 (0.0)	5 (16.1)	2 (11.8)
Consumer and homemaking	5 (13.9)	0 (0.0)	6 (19.4)	6 (35.3)
GRADS	6 (16.7)	1 (20.0)	8 (25.8)	5 (29.4)
Trade and Industry	1 (2.8)	0 (0.0)	3 (9.7)	1 (5.9)
Health Occupations	1 (2.8)	0 (0.0)	1 (3.2)	0 (0.0)
Other	7 (19.4)	1 (20.0)	6 (19.4)	0 (0.0)
Total	36 (40.4)	5 (5.6)	31 (34.8)	17 (19.1)

NOTE: Chi-square is 23.48 with 18 degrees of freedom.
Cramer's V is .30

TABLE D.16

RELATIONSHIP BETWEEN CHANGE IN GRADE POINT AVERAGES AND ALTERNATIVE DAY CARE FOR SECONDARY STUDENTS

Day Care Alternatives	Change in GPA			
	Negative	None	Positive	Unknown
Family	19 (52.8)	3 (60.0)	16 (51.6)	9 (52.9)
Spouse	3 (8.3)	0 (0.0)	0 (0.0)	0 (0.0)
Friend	2 (5.6)	0 (0.0)	0 (0.0)	1 (5.9)
None	10 (27.8)	2 (40.0)	9 (29.0)	3 (17.6)
Other	1 (2.8)	0 (0.0)	1 (3.2)	0 (0.0)
Combination of above	1 (2.8)	0 (0.0)	5 (16.1)	2 (11.8)
Unknown	0 (0.0)	0 (0.0)	0 (0.0)	2 (11.8)
Total	36 (40.4)	5 (5.6)	31 (34.8)	17 (19.1)

NOTE: Chi-square is 20.48 with 18 degrees of freedom.
Cramer's V is 0.28.

TABLE D.17

RELATIONSHIPS BETWEEN ATTENDANCE RATES AND COURSE COMPLETION, GRADUATION, OR GED COMPLETION FOR SECONDARY AND ADULT STUDENTS

Percentage of Days Absent	Type of Completion				
	GED	Graduation	Course(s)	Other	Unknown
Secondary Students[a]					
0-10%	0 (0.0)	12 (42.9)	5 (13.9)	3 (12.5)	0 (0.0)
11-20%	0 (0.0)	9 (32.1)	14 (38.9)	7 (29.2)	0 (0.0)
21-30%	0 (0.0)	3 (10.7)	8 (22.2)	5 (20.8)	0 (0.0)
31-40%	0 (0.0)	1 (3.6)	6 (16.7)	1 (4.2)	0 (0.0)
41-50%	0 (0.0)	0 (0.0)	1 (2.8)	3 (12.5)	0 (0.0)
51-100%	0 (0.0)	3 (10.7)	2 (5.6)	5 (20.8)	0 (0.0)
Total	0 (0.0)	28 (31.5)	36 (40.4)	24 (27.0)	0 (0.0)
Adult Students[b]					
0-10%	1 (33.3)	0 (0.0)	5 (33.3)	3 (8.1)	0 (0.0)
11-20%	2 (66.7)	0 (0.0)	2 (13.3)	6 (16.2)	0 (0.0)
21-30%	0 (0.0)	0 (0.0)	2 (13.3)	4 (10.8)	0 (0.0)
31-40%	0 (0.0)	0 (0.0)	0 (0.0)	6 (16.2)	0 (0.0)
41-50%	0 (0.0)	0 (0.0)	0 (0.0)	3 (8.1)	1 (10.0)
51-100%	0 (0.0)	0 (0.0)	6 (28.6)	15 (40.5)	0 (0.0)
Total	3 (5.4)	0 (0.0)	15 (26.8)	37 (66.1)	1 (1.8)

[a]Chi-square is 27.87 with 15 degrees of freedom.
Cramer's V is 0.32.

[b]Chi-square is 27.99 with 15 degrees of freedom.
Cramer's V is 0.41.

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